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DEPARTMENT OF THE NAVY
JUSTIFICATION OF ESTIMATES
FY 1991 BUDGET ESTIMATES

AD-A219 528



SUBMITTED TO CONGRESS JANUARY 1990

OTHER PROCUREMENT, NAVY

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Department of the Navy
Other Procurement, Navy

Justification of Estimates for Fiscal Year 1991

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*Available for use, Cost Estimate to 300,000,000
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STATEMENT "A" per Dianne Glaister
Navy Budget Office/NCBG-2
TELECON 3/21/90 VG

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OTHER PROCUREMENT, NAVY

For procurement, production, and modernization of support equipment and materials not otherwise provided for, Navy ordnance [and ammunition] (except ordnance for new aircraft, new ships, and ships authorized for conversion); the purchase of not to exceed 2 vehicles required for physical security of personnel, notwithstanding price limitations applicable to passenger vehicles but not to exceed \$160,000 per vehicle and the purchase of not to exceed [671] 646 passenger motor vehicles of which [645] 627 shall be for replacement only; expansion of public and private plants, including the land necessary therefor, and such lands and interests therein, may be acquired, and construction prosecuted thereon prior to approval of title; and procurement and installation of equipment, appliances, and machine tools in public and private plants; reserve plant and Government and contractor-owned equipment layaway; [\$7,970,764,000] \$6,081,500,000, to remain available for obligation until September 30, [1992] 1993, of which \$36,200,000 shall be available only for the Navy Reserve (10 U.S.C. 5013, 5063; Department of Defense Appropriations Act, 1990; additional authorizing legislation to be proposed.)

Other Procurement, Navy
Program and Financing (in Thousands of dollars) SUMMARY

Identification code	17-1810-0-1-051	Budget Plan (amounts for PROCUREMENT actions programed)			Obligations		
		1989 actual	1990 est.	1991 est.	1989 actual	1990 est.	1991 est.
Program by activities:							
Direct program:							
00.0101	Ships support equipment	620,486	3,580,465	1,338,955	697,550	1,802,611	1,457,120
00.0201	Communications and electronics equipment	1,399,461	1,562,834	2,020,969	1,410,913	1,416,448	1,251,706
00.0301	Aviation support equipment	487,699	577,781	283,787	552,608	463,373	326,763
00.0401	Ordnance support equipment	1,051,605	733,045	600,636	785,068	948,437	693,328
00.0501	Civil engineering support equipment	111,566	99,681	88,468	93,520	113,685	93,455
00.0601	Supply support equipment	109,676	143,096	478,430	93,945	150,712	373,938
00.0701	Personnel and command support equipment	444,773	669,322	748,577	468,951	541,298	658,456
00.0801	Spares and repair parts	527,538	413,596	521,678	542,429	417,976	528,901
00.9101	Total direct program	4,752,804	7,779,820	6,081,500	4,644,984	5,854,540	5,383,667
01.0101	Reimbursable program	51,776	130,000	96,000	39,061	163,774	96,000
10.0001	Total	4,804,580	7,909,820	6,177,500	4,684,045	6,018,314	5,479,667
Financing:							
Offsetting collections from:							
11.0001	Federal funds(-)	-17,253	-17,500	-17,500	-19,410	-17,500	-17,500
13.0001	Trust funds(-)	-4,235	-110,000	-76,000	-2,275	-110,000	-76,000
14.0001	Non-Federal sources(-)	-30,288	-2,500	-2,500	-29,929	-2,500	-2,500
17.0001	Recovery of prior year obligations				-58,614		
	Unobligated balance available, start of year:				-1,817,864	-1,928,409	-3,819,915
21.4002	For completion of prior year budget plans				-163,800	-84,469	
21.4003	Available to finance new budget plans		-84,469				
21.4009	Reprogramming from/to prior year budget plan						
22.4001	Unobligated balance transferred to other acc		57,400		56,638	57,400	
23.4090	Reduction pursuant to P.L. 99-177 in unob ba		27,069			27,069	
	Unobligated balance available, end of year:						
24.4002	For completion of prior year budget plans				1,928,409	3,819,915	4,517,748
24.4003	Available to finance subsequent year budget				84,469		
25.0001	Unobligated balance lapsing				36,455		
39.0001	Budget authority	4,698,123	7,779,820	6,081,500	4,698,123	7,779,820	6,081,500
Budget authority:							
40.0001	Appropriation	4,813,969	7,970,764	6,081,500	4,813,969	7,970,764	6,081,500
40.0004	Reduction pursuant to P.L. 100-463				-6,978		
40.0005	Reduction pursuant to P.L. 101-165		-4,200			-4,200	
40.0090	Reduction pursuant to P.L. 99-177		-75,303			-75,303	
41.0001	Transferred to other accounts(-)		-111,441		-184,634	-111,441	
42.0001	Transferred from other accounts		75,766		75,766		
43.0001	Appropriation (adjusted)	4,698,123	7,779,820	6,081,500	4,698,123	7,779,820	6,081,500

Other Procurement, Navy
Program and Financing (in Thousands of dollars) SUMMARY

Identification code	17-1810-0-1-051	1989 actual	1990 est.	1991 est.
Relation of obligations to outlays:				
71.0001	Obligations incurred, net	4,632,431	5,888,314	5,383,667
72.4001	Obligated balance, start of year	9,050,447	8,413,403	8,606,717
74.4001	Obligated balance, end of year	-8,413,403	-8,606,717	-8,439,284
77.0001	Adjustments in expired accounts (net)	8,885		
78.0001	Adjustments in unexpired accounts	-58,614		
90.0001	Outlays	5,219,746	5,695,000	5,551,100

Other Procurement, Navy
Object Classification (in Thousands of dollars) SUMMARY

Identification code	17-1810-0-1-051	1989 actual	1990 est.	1991 est.
Direct obligations:				
Other services:				
125.002	Purchases from industrial funds	22,768	25,519	28,488
125.003	Contracts	49,060	54,882	61,387
125.004	Other	72,780	81,575	92,068
126.001	Supplies and materials	1,009,201	1,131,154	1,262,787
131.001	Equipment	3,491,175	4,561,410	3,938,937
199.001	Total Direct obligations	4,644,984	5,854,540	5,383,667
Reimbursable obligations:				
Other services:				
225.002	Purchases from industrial funds	455	455	455
225.003	Contracts	968	968	968
225.004	Other	513	513	513
226.001	Supplies and materials	7,735	7,735	7,735
231.001	Equipment	29,390	154,103	86,329
299.001	Total Reimbursable obligations	39,061	163,774	96,000
999.901	Total obligations	4,684,045	6,018,314	5,479,667

Other Procurement, Navy
Program and Financing (in Thousands of dollars) FISCAL YEAR 1987

Identification code	17-1810-0-1-051	Budget plan (amounts for PROCUREMENT actions programmed)		Obligations		
		1989 actual	1990 est.	1991 est.	1990 est.	1991 est.
Program by activities:						
Direct program:						
00.0101	Ships support equipment			46,978		
00.0201	Communications and electronics equipment			200,755		
00.0301	Aviation support equipment			25,882		
00.0401	Ordnance support equipment			45,177		
00.0501	Civil engineering support equipment			10,138		
00.0601	Supply support equipment			3,716		
00.0701	Personnel and command support equipment			35,415		
00.0801	Spares and repair parts			7,242		
00.9101	Total direct program			375,303		
01.0101	Reimbursable program			3,001		
10.0001	Total			378,304		
Financing:						
Offsetting collections from:						
11.0001	Federal funds(-)			3,144		
13.0001	Trust funds(-)			2,293		
14.0001	Non-Federal sources(-)			1,427		
17.0001	Recovery of prior year obligations			-26,593		
21.4002	Unobligated balance available, start of year:			-417,447		
21.4003	For completion of prior year budget plans			-99,900		
21.4009	Available to finance new budget plans					
22.4001	Reprogramming from/to prior year budget plan					
25.0001	Unobligated balance transferred to other account			123,700		
	Unobligated balance lapsing			35,072		
39.0001	Budget authority					

Other Procurement, Navy
Program and Financing (in Thousands of dollars) FISCAL YEAR 1988

Identification code	17-1810-0-1-051	Budget Plan (amounts for PROCUREMENT actions programed)			Obligations		
		1989 actual	1990 est.	1991 est.	1989 actual	1990 est.	1991 est.
Program by activities:							
Direct program:							
00.0101	Ships support equipment				138,331	64,384	
00.0201	Communications and electronics equipment				299,566	306,217	
00.0301	Aviation support equipment				79,689	22,174	
00.0401	Ordnance support equipment				126,749	125,631	
00.0501	Civil engineering support equipment				16,009	8,538	
00.0601	Supply support equipment				23,937	15,470	
00.0701	Personnel and command support equipment				84,367	41,061	
00.0901	Spares and repair parts				46,433	12,956	
00.9101	Total direct program				815,081	596,431	
01.0101	Reimbursable program				2,874	15,184	
10.0001	Total				817,955	611,615	
Financing:							
Offsetting collections from:							
11.0001	Federal funds(-)				-5,301		
13.0001	Trust funds(-)				-333		
14.0001	Non-Federal sources(-)				-1,068		
17.0001	Recovery of prior year obligations				-32,021		
Unobligated balance available, start of year:							
21.4002	For completion of prior year budget plans				-1,400,417	-611,615	
21.4003	Available to finance new budget plans				-63,900	-8,271	
21.4009	Reprogramming from/to prior year budget plan						
22.4001	Unobligated balance transferred to other acc				65,200		
23.4090	Reduction pursuant to P.L. 99-177 in unob ba						
Unobligated balance available, end of year:							
24.4002	For completion of prior year budget plans				611,615		
24.4003	Available to finance subsequent year budget				8,271		
39.0001	Budget authority						

Other Procurement, Navy
Program and Financing (in thousands of dollars) FISCAL YEAR 1989

Identification code	17-1810-0-1-051	Budget Plan (amounts for PROCUREMENT actions programmed)		Obligations	
		1989 actual	1990 est.	1989 actual	1990 est.
Program by activities:					
Direct program:					
00.0101	Ships support equipment	620,486		512,241	53,542
00.0201	Communications and electronics equipment	1,399,461		910,592	172,531
00.0301	Aviation support equipment	487,699		447,037	37,052
00.0401	Ordnance support equipment	1,051,605		613,142	300,427
00.0501	Civil engineering support equipment	111,566		67,373	34,244
00.0601	Supply support equipment	109,676		66,292	33,467
00.0701	Personnel and command support equipment	444,773		349,169	57,268
00.0801	Spares and repair parts	527,538		488,754	32,784
00.9101	Total direct program	4,752,804		3,454,600	721,315
01.0101	Reimbursable program	51,776		33,186	18,590
10.0001	Total	4,804,580		3,487,786	739,905
Financing:					
Offsetting collections from:					
11.0001	Federal funds(-)	-17,253		-17,253	
13.0001	Trust funds(-)	-4,235		-4,235	
14.0001	Non-Federal sources(-)	-30,288		-30,288	
21.4002	Unobligated balance available, start of year:				
21.4003	For completion of prior year budget plans				
22.4001	Available to finance new budget plans				
23.4090	Unobligated balance transferred to other acc	-132,262		-132,262	
24.4002	Reduction pursuant to P.L. 99-177 in unob ba				
24.4003	Unobligated balance available, end of year:				
25.0001	For completion of prior year budget plans	76,198		1,316,794	576,889
	Available to finance subsequent year budget	1,383		76,198	
	Unobligated balance lapsing			1,383	
39.0001	Budget authority	4,698,123		4,698,123	
Budget authority:					
40.0001	Appropriation	4,813,969		4,813,969	
40.0004	Reduction pursuant to P.L. 100-463	-6,978		-6,978	
41.0001	Transferred to other accounts(-)	-184,634		-184,634	
42.0001	Transferred from other accounts	75,766		75,766	
43.0001	Appropriation (adjusted)	4,698,123		4,698,123	

Other Procurement, Navy
Program and Financing (in Thousands of dollars) FISCAL YEAR 1990

Identification code	17-1810-0-1-051	Budget Plan (amounts for PROCUREMENT actions programed)			Obligations		
		1989 actual	1990 est.	1991 est.	1989 actual	1990 est.	1991 est.
Program by activities:							
Direct program:							
00.0101	Ships support equipment		3,580,465		1,684,685	488,514	
00.0201	Communications and electronics equipment		1,562,834		937,700	35,374	
00.0301	Aviation support equipment		577,781		404,147	111,505	
00.0401	Ordnance support equipment		733,045		522,379	117,660	
00.0501	Civil engineering support equipment		99,681		70,903	20,022	
00.0601	Supply support equipment		143,096		101,775	28,737	
00.0701	Personnel and command support equipment		669,322		442,969	112,366	
00.0801	Spares and repair parts		413,596		372,236	35,000	
00.9101	Total direct program		7,779,820		4,536,794	949,178	
01.0101	Reimbursable program		130,000		130,000		
10.0001	Total		7,909,820		4,666,794	949,178	
Financing:							
Offsetting collections from:							
11.0001	Federal funds(-)		-17,500		-17,500		
13.0001	Trust funds(-)		-110,000		-110,000		
14.0001	Non-Federal sources(-)		-2,500		-2,500		
21.4002	Unobligated balance available, start of year:					-3,243,026	
	For completion of prior year budget plans						
24.4002	Unobligated balance available, end of year:						
	For completion of prior year budget plans				3,243,026	2,293,848	
39.0001	Budget authority		7,779,820		7,779,820		
Budget authority:							
40.0001	Appropriation		7,970,764		7,970,764		
40.0005	Reduction pursuant to P.L. 101-165		-4,200		-4,200		
40.0090	Reduction pursuant to P.L. 99-177		-75,303		-75,303		
41.0001	Transferred to other accounts(-)		-111,441		-111,441		
43.0001	Appropriation (adjusted)		7,779,820		7,779,820		

Other Procurement, Navy
Program and Financing (in Thousands of dollars) FISCAL YEAR 1991

Identification code	17-1810-0-1-051	Budget plan (amounts for PROCUREMENT actions programmed)			Obligations		
		1989 actual	1990 est.	1991 est.	1989 actual	1990 est.	1991 est.
Program by activities:							
Direct program:							
00.0101	Ships support equipment			1,338,955			913,903
00.0201	Communications and electronics equipment			2,020,969			899,994
00.0301	Aviation support equipment			283,787			211,648
00.0401	Ordnance support equipment			600,636			437,632
00.0501	Civil engineering support equipment			88,468			63,484
00.0601	Supply support equipment			478,430			335,284
00.0701	Personnel and command support equipment			748,577			507,754
00.0801	Spares and repair parts			521,678			487,901
00.9101	Total direct program			6,081,500			3,857,600
01.0101	Reimbursable program			96,000			96,000
10.0001	Total			6,177,500			3,953,600
Financing:							
Offsetting collections from:							
11.0001	Federal funds(-)			-17,500			-17,500
13.0001	Trust funds(-)			-76,000			-76,000
14.0001	Non-Federal sources(-)			-2,500			-2,500
24.4002	Unobligated balance available, end of year: For completion of prior year budget plans						2,223,900
40.0001	Budget authority (Appropriation)			6,081,500			6,081,500

BUDGET ACTIVITY 1: SHIP SUPPORT EQUIPMENT
SUMMARY OF BUDGET PLAN
 (\$ In Thousands)

BUDGET PLAN (Amounts for Procurement Actions Programmed)					
	<u>FY 1989</u> <u>Actual</u>	<u>FY 1990</u> <u>Estimate</u>	<u>FY 1991</u> <u>Estimate</u>	<u>Justification</u> <u>Page</u>	
SHIP PROPULSION EQUIPMENT	\$20,040	\$15,813	\$25,907		13
GENERATORS AND PUMPS	3,651	6,152	15,933		14
AIR COMPRESSORS	231	580	2,040		14
PROPELLERS	4,184	8,583	9,764		15
NAVIGATION EQUIPMENT	2,224	7,365	11,992		15
UNDERWAY REPLENISHMENT EQUIPMENT	2,749	6,909	11,214		16
PERISCOPES	6,087	18,550	13,061		16
OTHER SHIPBOARD EQUIPMENT:					
SHIP SILENCING	7,324	17,648	20,782		17
STRATEGIC PLATFORM SUPPORT	38,368	87,754	58,395		18
DEEP SUBMERGENCE	6,083	7,310	12,022		18
SURFACE IMA	6,486	7,995	9,380		19
MINESWEEPING EQUIPMENT	1,176	2,331	6,168		19
SAFETY EQUIPMENT	17,461	26,817	73,651		20
MISCELLANEOUS	86,167	68,596	99,987		21

REACTOR PLANT EQUIPMENT	280,432	370,375	350,184	21
OCEAN ENGINEERING	83,199	27,218	6,304	22
SMALL BOATS	16,033	13,276	10,419	23
TRAINING EQUIPMENT	4,112	5,300	7,390	23
PRODUCTION FACILITIES EQUIPMENT	34,479	25,057	20,247	24
OTHER SHIP SUPPORT	0	2,856,836	574,115	24
<hr/>				
TOTAL BUDGET PLAN	\$620,486	\$3,580,465	\$1,338,955	

BUDGET ACTIVITY 1: SHIPS SUPPORT EQUIPMENT

(\$ In Thousands)
FY 1991 Estimate - \$ 1,338,955
FY 1990 Estimate - \$ 3,580,465
FY 1989 Actual - \$ 620,486

Purpose and Scope of Work

Budget Activity 1 programs include shipboard components, Reactor Cores and Reactor Plant Components, support of the Deep Submergence, TRIDENT and Small Boat procurement programs, and Production Facilities and Training equipment. FY 1990 reflects the transfer from the Operations and Maintenance appropriation for installation of modernization equipment funding for FY 1990 installations and funding for the installation of equipment procured in FY 1990 and prior to be installed in future years. Installation costs have been incorporated into the end item procurement costs across Budget Activities 1, 2, 3, 4 and 7, commencing in FY 1991. In addition, Budget Activity 1 reflects costs for design services, nuclear alterations, program support and other modernization support efforts.

Shipboard components, as well as nuclear components and small boats, are procured for direct support or installation on Active Fleet ships as part of a planned maintenance replacement program or as part of an improvement program. These components are also procured to fill authorized stock requirements. Funding for the Deep Submergence program is aimed at expanding the Navy's capability to live, work, explore, and perform rescue missions in deep ocean areas.

Justification of Funds

Ship Propulsion Equipment (P-1 Line Items 1-5)

(\$ In Thousands)
FY 1990
\$15,813
FY 1991
\$25,907

These funds will provide for the procurement and installation of equipment designed to improve the reliability, maintainability, fuel efficiency, power output, and durability of the LM 2500 Gas Turbine Engines. The LM 2500 engines were introduced into the Fleet through the DD-963 and FFG-7 Class construction programs and the Allison 501K Gas Turbine Engine was introduced into the Fleet through the DD-963,

DDG-993, and DD-997 Class ships. These improvements will be accomplished through procurement and installation of modifications identified as a result of the Component Improvement Program. Existing 1200 and 600 PSI Steam Plants require sufficient funds to modify and improve reliability through the procurement of remote pilot operated safety valves and detectors, diesel engine monitoring systems, boiler safety shut-off devices, steam plant inspection tooling, burner upgrades, boiler burner barrel resurfacing tools, auxiliary boiler control system, and ethylene diamine tetra acetate/hydrazine injection systems. Funds requested will also procure secondary propulsion motors, shaft seal housing, modification kits for ME831-800 engines, support for LCAC gas turbines, support for marine diesel engines, clutch retrofit kits, and outfitting for boiler test centers.

Generators and Pumps (P-1 Line Items 6-7)

(\$ In Thousands)	
FY 1990	FY 1991
<u>\$ 6,152</u>	<u>\$15,933</u>

Funding requested for these programs will provide for continuation of programs to replace obsolescent, unsupported, underpowered, and unreliable generators and pumps of various capacities and sizes. These programs also procure equipment to support programmed SHIPALTS. Types of equipment procured include an arcing fault detector for SSN and SSBN overhauls; 60/400 HZ motor generator sets for CG, CGN and DDG class overhauls; 400 HZ current limiting devices for FFG-7 class, DD-963 class and DDG-993 class overhauls; 400 HZ static frequency converters for replacement of those on FFG-7 class ships; air conditioning chill water pumps; trim and drain pumps for SSN's and SSBN's; fire pumps/ends/motors for CVs/CVNs and pumps for the auxiliary/amphibious ship maintenance strategy program, and the surface and submarine advanced equipment repair programs.

Air Compressors (P-1 Line Items 8-9)

(\$ In Thousands)	
FY 1990	FY 1991
<u>\$ 580</u>	<u>\$ 2,040</u>

These funds will provide for the procurement and installation of greater capacity and more reliable high pressure air compressors than those currently installed in the Active Fleet. Three 30 Cubic feet/hour air compressors are being procured in FY 1990. These units are essential to the operation of Liquid Oxygen Generating Plants on aircraft carriers in direct support of aircraft. Two additional compressors will be procured in FY 1991.

Propellers (P-1 Line Items 9-10)

(\$ In Thousands)	
FY 1990	FY 1991
\$ 8,583	\$ 9,764

The requested funding will provide for the procurement and installation of propellers to reduce the noise signature on FBW and attack submarines and as replacements for those propellers currently installed as casualties occur. Funds are also required for replacement of blades, shafts, and hubs in support of active fleet ships as damage or failure occurs, as well as for support inventories for the newer classes of ships such as FFG-7s, DD-963s, CG-47s, LSD-41s, and the DDG-51s.

Navigation Equipment (P-1 Line Items 11-13)

(\$ In Thousands)	
FY 1990	FY 1991
\$ 7,365	\$11,992

These funds will procure and installation Electrically Suspended Gyro Navigator field change kits, modification kits and documentation. Funds are also budgeted for maintenance items and newly developed improvements for the AN/WSN-5 Inertial Navigation Sets, plotters, gyro compasses, and for documentation. These improvements provide more precise fire control computation and improved accuracy in support of sophisticated missile systems and for safety.

Underway Replenishment Equipment (P-1 Line Item 14)

(\$ In Thousands)	
FY 1990	FY 1991
\$ 6,909	\$11,214

The equipment procured under this program is required to provide the Active Fleet with new or improved underway replenishment-at-sea capability. This equipment is used to transfer fuel, cargo, ammunition, and missiles by both alongside and vertical replenishment techniques. The equipment being procured supports the following objectives: personnel/equipment safety, reduction in maintenance costs, and reduction in alongside time, to minimize ship vulnerability to enemy action. Major equipment includes ram tensioners, highline spanwire winches, sliding padeyes, sliding block slip clutches, flotation devices, and Burton Navy standard spanwire winches, vertical conveyors, saddle winches, and elevator improvements.

Periscopes (P-1 Line Items 15-17)

(\$ In Thousands)	
FY 1990	FY 1991
\$18,550	\$13,061

These funds will provide for the procurement of Type 18 periscope related material and other periscopes and accessories. The Type 18 periscope equipment includes eyepiece boxes and masts required to establish an inventory of these parts based on actual/predicted failure rates and turn around times and Automatic Direction Finding (ADF) modifications to provide ADF capability on SSN-637 and 688 class submarines. Funds are required to procure a Submarine Satellite Information Exchange reception capability on Type 18 periscopes. Type 18 periscope systems will also be procured to establish a rotatable pool of ready-for-issue assets in support of the depot modernization program for SSN 688 class submarines. Field change kits are being procured to implement approved changes on previously procured Type 18 periscopes. Equipment to provide

additional shore/tender based components for other type periscopes is also required to ensure that an issuable periscope is always available as a replacement for damaged units on SSN 594 and 637 class ships. This requirement is based on past demand experience and repair turnaround time.

Modifications for Type 8 periscopes to incorporate solid state amplifiers, twelve-channel rotary joints, and improved slip ring assemblies, noise source and sapphire heated head window assemblies will be procured and installed. Type 8 Mod 3 periscopes engineering change proposals/Field Change Kits are funded for backfit into Type 8 periscopes installed on submarines. The improvement over existing equipment is enhanced imaging and communications. Funding will also provide for support and improvement of the Type 2 and 15 series periscopes for all Active Fleet submarines.

Other Shipboard Equipment (Ship Silencing) (P-1 Line Items 21 and 22)

(\$ In Thousands)	
FY 1990	FY 1991
\$17,648	\$20,782

The requested funds will provide for the procurement and installation of equipment required to implement the high priority Submarine Silencing program on existing nuclear submarines and for the acoustic quieting of radiated noise and sonar self-noise for surface ships. The submarine silencing equipment incorporates technology developed under RDT&EN programs for improving detection capability and reducing the detectability of the submarine. The surface ship silencing program will make use of the extensive silencing technology already developed under the Submarine Silencing program. FY 1990 and FY 1991 funding for the submarine silencing program includes procurement of equipments supporting the east and west coast acoustic measurement facilities. In addition, FY 1990 and FY 1991 funding for surface ships provides for the procurement of cascade orificial resistive devices for FFG-7 class ships, air systems for CGs; fluid acoustic filters and flexible hose couplings for installation in fire mains on DD-963 and DDG-993 class ships; rubber boots to replace stainless steel bellows between the main gear and lube oil sump on DD-963, DDG-993 and CG-47 class ships; hub devices for CG-16 class ships; hull coating for CGN-38 class ships; sonar dome baffles for DD-963 and DDG-993 class ships; and instrumentation for the Surface Ship Silencing/Trials program.

Other Shipboard Equipment (Strategic Platform Support) P-1 Lines Item 24 and 25)

(\$ In Thousands)	
FY 1990	FY 1991
<u>\$87,754</u>	<u>\$58,395</u>

Funding for this program provides for hull, mechanical, and electrical equipment required to support maintenance tasks for TRIDENT submarines. The equipment is required to support the operating tempo of FBM submarines and includes funding to develop stock levels for TRIDENT plant equipment and repair (TRIPER) equipments to achieve the required operational availability and to achieve a depot availability period which does not exceed one year; alteration/modification packages for TRIPER equipment to maintain standardization and interchangeability of offsets; long lead material equipment for the advanced equipment replacement program, main shaft seal mating rings, and alteration/modification packages for hull, mechanical and electrical equipment.

Other Shipboard Equipment (Deep Submergence) (P-1 Line Item 26)

(\$ In Thousands)	
FY 1990	FY 1991
<u>\$ 7,310</u>	<u>\$12,022</u>

The requested funds will provide for the procurement and installation of hardware to improve/modify Deep Submergence Vehicles to provide the Navy with the capability to rescue personnel from craft disabled on the ocean floor. It also will improve the capability to perform manned underwater search, inspection and recovery missions.

Other Shipboard Equipment (Surface IMA) (P-1 Line Item 31)

(\$ In Thousands)	
FY 1990	FY 1991
<u>\$ 7,995</u>	<u>\$ 9,380</u>

This program will procure equipment necessary to achieve operational availability and provide funds to upgrade facilities both ashore and afloat (industrial plant and tenders) in order to improve and expand intermediate level maintenance by the surface forces. Shipboard maintenance will emphasize modular replacement with repairables being returned to Intermediate Maintenance Activities and Depot Overhaul Points for repair or rework and return to stock.

Other Shipboard Equipment (Minesweeping Equipment) (P-1 Line Item 29)

(\$ In Thousands)	
FY 1990	FY 1991
<u>\$ 2,331</u>	<u>\$ 6,168</u>

This program will provide for the procurement of minesweeping cables necessary to counter moored and influence mines. These funds will procure Q-3 cables, mine neutralization system vehicles, minesweeping controllers, and minesweeping wires.

Other Shipboard Equipment (Safety Equipment) (P-1 Line Items 18, 33, and 35)

(\$ In Thousands)	
FY 1990	FY 1991
<u>\$26,817</u>	<u>\$73,651</u>

These funds procure and install equipment which supports shipboard fire fighting operations, fuel tank inspection, and other activities which can involve the exposure of lungs to noxious substances. Funding will provide the Navy with the latest available safety equipment in order to perform assigned tasks without risking personal injury, provide for the protection of personnel from exposure to nuclear weapons radiation and provide ships of the active fleet with the capability to detect chemical warfare agents before ship contamination occurs. FY 1990 and FY 1991 funding will provide Halon 1301 Fire Fighting systems to complement the existing Aqueous Film Forming Foam/Purple K Dry Chemical Powder hose reel systems in machinery spaces as well as procurement of this system in a mobile/portable form; Oxygen-Breathing Apparatus Voice Amplifiers to improve communications between fire fighting team members; damage control wire free communication systems; shielding which will be affixed to bulkheads and to cradles containing individual weapons on CVs, SSN-688s, non-FBM ASs and at shore facilities; support for the Radiological Affairs Support Office, and chemical warfare directional detectors, chemical agent point detector systems and chemical agent monitors.

Other Shipboard Equipment (Miscellaneous) (P-1 Line Items 19, 20, 23, 27, 28, 30, 32, 34, 36, 37, and 38)

(\$ In Thousands)	
FY 1990	FY 1991
\$68,596	\$99,987

These funds provide for; procurement and installation of Combat System Command and Control Switchboards; equipment which will enable the Navy to comply with Federal law and DOD environmental pollution control regulations; replacement batteries for all active submersible craft/submarines; procurement and positioning of special equipment for merchant ships to provide them with the capability to perform Naval auxiliary roles; provision of specialized equipment to assure reliable repair of electronic modules at selected shore, surface and subsurface fleet activities; air conditioners and equipment for submarines; degaussing equipment for surface ships; molded case circuit breakers; and modifications/replacements for equipment which costs less than \$2,000,000 by category.

Reactor Plant Equipment (P-1 Line Items 39 and 40)

(\$ In Thousands)	
FY 1990	FY 1991
\$370,375	\$350,184

The FY 1990 and 1991 requests provide for the procurement of replacement reactor cores, power units, and other reactor plant components and equipment. Replacement cores and power units are the assemblies of nuclear fuel and necessary associated structural and reactivity control equipment required for the periodic refueling of nuclear powered ships. The procurement of these units is accomplished by the Department of Energy (DOE). The DOE has developed production lines within the civilian nuclear industry to fabricate these units. The funds requested are required to meet the refueling needs of the Navy in a manner most efficient to the government, while ensuring adequate workload to support the industrial base.

The reactor component line item includes the components, equipment, and material required to provide minimum support needed for the continued safe and reliable operations of naval nuclear propulsion plants. Funds are programmed for acquisition of replacement components for ship alterations and specialized equipment necessary for refueling of nuclear powered ships.

Ocean Engineering (P-1 Line Items 41-44)

	(\$ In Thousands)
FY 1990	FY 1991
\$27,218	\$ 6,304

These programs provide for the procurement of equipment to support safety requirements at the existing depth capabilities and mission duration restriction imposed on the working diver, equipment to improve the Navy's diving capabilities and maintain sufficient levels of critical salvage items, and improved equipment developed as part of Swimmer Support Systems for Underwater Demolition Teams, SEAL Teams, and Inshore Undersea Warfare Groups. FY 1991 funds will procure the lightweight diving systems; portable recompression chambers; synthetic line; sonar systems for the unmanned submersibles ORION, DEEP DRONE, and CURV III; salvage air compressors; underwater non-destruction test systems; reverse osmosis water purification unit marinization kits; fly away deep ocean salvage systems; 30KW generators; underwater breathing apparatus support packages; underwater remotely operated vehicles; expendable ordnance disposal inflatable craft; chemical warfare protective diving suits; SEAL team, Special Warfare group, and Naval Forces dry suits outfitting; dry deck shelter improvements; rigid inflatable boats; night vision equipment; communications and navigation equipment; and radar beacon transponders. The FY 1991 request reflects the transfer of Special Operation Forces funding to the Procurement, Defense Agencies appropriation.

Small Boats (P-1 Line Item 45)

(\$ In Thousands)	
FY 1990	FY 1991
<u>\$13,276</u>	<u>\$10,419</u>

Standard boats procured with these funds will be used to fill new or revised allowances, to replace obsolete wooden boats now in service, and to replace boats of fiberglass or steel construction which are beyond economical repair. Types of boats to be procured with these funds include the 50' workboat and utility boat; 22' utility boat; 33' utility boat; 26' motor whaleboat; 40' plane personnel and rescue boat; 65' Explosive Ordnance Disposal Craft and and 56' range support boat.

Training Equipment (P-1 Line Item 46)

(\$ In Thousands)	
FY 1990	FY 1991
<u>\$ 5,300</u>	<u>\$ 7,390</u>

This program provides equipment for the support of initial training requirements developed through the Navy Training Plan process and sustaining training requirements developed by the Chief of Naval Education and Training.

Production Facilities Equipment (P-1 Line Items 48 and 49)

(\$ In Thousands)	
FY 1990	FY 1991
\$25,057	\$20,247

These programs provide for the procurement of replacement cranes for the floating dry dock at Norfolk Naval Shipyard, funding required for industrial plant equipment and other shop equipment necessary to support Navy managed facilities; machine tools, industrial plant equipment and other plant equipment to support the Fleet Operations Program.

Other Ship Support (P-1 Line Items 50-53)

(\$ In Thousands)	
FY 1990	FY 1991
\$2,856,836	\$574,115

Funding in FY 1990 provides for the Installation of Modernization Equipment for both equipment planned for installation in FY 1990 and installations of equipment procured in FY 1990 and prior to be installed in future years. Commencing in FY 1991 installation costs have been incorporated into the end item procurement costs. The funding remaining in Other Ship Support will fund design services for all alterations, program support, and nuclear alteration and other modernization support efforts costs.

BUDGET ACTIVITY 2: COMMUNICATIONS AND ELECTRONIC EQUIPMENT
SUMMARY OF BUDGET PLAN
(\$ In Thousands)

BUDGET PLAN
(Amounts For Procurement Actions Programmed)

	FY 1989 ACTUAL	FY 1990 ESTIMATE	FY 1991 ESTIMATE	JUSTIFICATION PAGE
SHIP RADARS	110,927	93,383	97,283	27
SHIP SONARS (SURFACE SHIPS)	221,823	209,916	309,623	28
SHIP SONARS (SUBMARINES)	90,005	87,626	130,263	29
SHIP SONAR: (GENERAL SUPPORT)	30,898	29,884	32,494	29
ANTI-SUBMARINE WARFARE ELECTRONICS (SURFACE SHIPS)	25,144	36,183	42,771	30
ANTI-SUBMARINE WARFARE ELECTRONICS (SUBMARINE)	13,499	210,573	256,532	30
ANTI-SUBMARINE WARFARE ELECTRONICS (AVIATION)	24,264	19,192	16,611	31
ANTI-SUBMARINE WARFARE ELECTRONICS (SURVEILLANCE)	32,538	36,099	33,685	32
ELECTRONIC WARFARE EQUIPMENT	72,580	89,077	105,534	32
RECONNAISSANCE EQUIPMENT	10,128	34,445	24,805	33
SUBMARINE SURVEILLANCE EQUIPMENT	24,501	18,413	30,957	34
OTHER SHIPBOARD ELECTRONIC EQUIPMENT	188,959	210,289	339,801	34
TRAINING EQUIPMENT	442	2,295	17,066	35

AVIATION ELECTRONIC EQUIPMENT	31,397	77,751	37,051	36
OTHER SHORE ELECTRONIC EQUIPMENT (COMM & CONTROL)	26,218	35,883	34,923	37
OTHER SHORE ELECTRONIC EQUIPMENT (MISCELLANEOUS)	233,613	73,263	134,669	38
SHIPBOARD COMMUNICATIONS	18,009	33,463	45,100	39
SUBMARINE COMMUNICATIONS	11,800	17,766	24,241	40
SATELLITE COMMUNICATIONS	21,158	104,783	129,491	40
SHORE COMMUNICATIONS	24,513	12,934	13,831	41
CRYPTOGRAPHIC EQUIPMENT	136,181	116,552	159,141	42
CRYPTOLOGIC EQUIPMENT	12,608	3,859	1,240	43
OTHER ELECTRONIC SUPPORT	2,360	4,305	3,857	44
DRUG INTERDICTION SUPPORT	35,896	4,900	0	44

TOTAL BUDGET PLAN	\$1,399,461	\$1,562,834	\$2,020,969
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BUDGET ACTIVITY 2: COMMUNICATIONS AND ELECTRONIC EQUIPMENT

	(\$ In Thousands)
FY 1991 Estimate	\$2,020,969
FY 1990 Estimate	\$1,562,834
FY 1989 Actual	\$1,399,461

Purpose and Scope of Work

Budget Activity 2 programs include the procurement and installation of shipboard and shore communications and electronic equipment for the Active Fleet and training activities. Improved shipboard surface and air search radars are designed to enhance the military capability of combatant ships. Anti-Submarine Warfare Electronics equipment will furnish surface ships, submarines and special shore activities with equipment used for detection, tracking localization and classification of submarines. Special sonars are procured for employment in Fleet Ballistic Missile submarines. Also procured in this budget activity is equipment which will provide the Fleet with the capability of deceiving, intercepting, and analyzing airborne, electromagnetic and underwater radiation for the purpose of executing an effective surveillance and intelligence collection capability.

Justification of Funds

Ship Radars (P-1 Line Items 54-60)

	(\$ In Thousands)
FY 1990	FY 1991
\$93,383	\$97,283

These Ship Radar procurements provide the active fleet with detection, tracking and identification equipment to meet the challenge of high speed attack capabilities of low-flyers, anti-ship missiles and modern aircraft. Specific radars and radar equipment improvements to be procured include the AN/SPS-40 radar system improvements which are designed to increase detection capability in hostile, cluttered, or low-flyer threat environments through improved system

availability and automation techniques (FY 1990 \$6.8 million; FY 1991 \$32.7 million); the AN/SPS-48 radar, a three-coordinate air search radar which has a primary function of providing target position data to a weapon system (FY 1990 \$43.7 million; FY 1991 \$1.0 million); the AN/SPS-49 radar, a narrow beamed, very long-range two dimensional, air search radar (FY 1991 \$8.5 million); the Integrated Automatic Detection and Tracking System (AN/SYS-()) which provides the capability to correlate contact data from up to three radars, determine target tracks, and provide a single target output to the ship's command and decision system automatically (FY 1990 \$4.5 million; FY 1991 \$4.8 million); and the MK-23 Target Acquisition System, a rapid reaction, fully automatic, electronic counter-counter-measure capable radar system developed as the target acquisition system for the Improved Point Defense Surface Missile System (FY 1990 \$25.5 million; FY 1991 \$37.5 million). This request also includes funding for procurement of various radar support items (FY 1990 \$12.9 million; FY 1991 \$12.7 million).

Ship Sonars (Surface Ships) (P-1 Line Items 61, 62 and 65)

(\$ In Thousands)	
FY 1990	FY 1991
\$209,916	\$309,623

Funds requested for Surface Ship Sonars include \$8.0 million in FY 1990 and \$18.4 million in FY 1991 for procurement of AN/SQS-26/53/53A sonar improvements. \$190.3 million in FY 1990 and \$280.2 in FY 1991 provides for procurement and installation of the AN/SQQ-89 Surface ASW Combat System. In FY 1990, equipment will be budgeted to complete AN/SQQ-89 upgrades for six ships. In FY 1991, equipment is budgeted to complete nine ships. \$11.6 million budgeted in FY 1990 and the \$11.0 million budgeted in FY 1991 provides for the procurement of emergency replacement windows and domes for the AN/SQS-26/53, AN/SQQ-23, AN/SQS-38 sonar systems.

Ship Sonars (Submarines) (P-1 Line Items 63, 64 & 68)

(\$ In Thousands)	
FY 1990	FY 1991
\$ 87,626	\$ 130,263

These funds provide for continued procurement and installation of AN/BQQ-5 modification kits required to upgrade previously procured and installed AN/BQQ-5 systems onboard SSN-637 and SSN-688 class submarines and maintenance trainers (FY 1990 \$84.7 million; FY 1991 \$127.3 million). These funds also provide for procurement of AN/BQR-23 Improved Processors and Memory, AN/BQR-15 array modification shipalfts, AN/BQQ-9 systems and various other alterations for installation on SSBN class submarines (FY 1990 \$2.9 million; FY 1991 \$3.0 million).

Ship Sonars (General Support) (P-1 Line Items 66 and 67)

(\$ In Thousands)	
FY 1990	FY 1991
\$ 29,884	\$ 32,494

These funds procure upgrade equipment for the Transducer Repair Facilities, including Towed Line Array (TLA) plant equipment for the TB-16, AN/SQS-18A(V)1, and engineering changes for the AN/BQS-14 including the upgrade of the Forward Look portion of this sonar, and AN/BQS-15 (FY 1990 \$9.3 million; FY 1991 \$6.6 million). This request also includes resources to continue procurement of TR-317 transducers for the AN/BQS-11/12/13 and AN/BQQ-5 sonars for use on SSN-594, SSN-637, SSN-688 class submarines; new TR-313 transducers for the AN/SQS-26 Sonar; and Electronic Scanning Switches required to support replacement of unreliable mechanical switches with electronic switches on both surface ships and submarines (FY 1990 \$20.6 million; FY 1991 \$25.9 million).

Anti-Submarine Warfare Electronics (Surface Ships) (P-1 Line Items 70 and 74-76)

(\$ In Thousands)	
FY 1990	FY 1991
\$ 36,183	\$ 42,771

This funding provides for the procurement and support of major ASW electronics systems for installation on deploying ships and those in the Naval Reserve Force. This request includes procurement of AN/SLQ-25 (NIXIE) engineering field change kits in FY 1990 and FY 1991, (FY 1990 \$15.6 million; FY 1991 \$17.5 million); AN/SQR-17 performance improvements and AN/SKR-4 Data Link Modifications required to receive the new DIFAR/DICASS sonobouy frequencies (FY 1990 \$12.7 million; FY 1991 \$8.9 million); improvements to increase the service life of the AN/SQR-15 Towed Array System (FY 1990 \$1.7 million; FY 1991 \$2.7 million); and procurement of kits to upgrade the AN/SQR-18 system to the AN/SQR-18A(V)1 configuration and continued procurement in FY 1990 and FY 1991 of the AN/SQR-18(V) critical angle tow systems which employ the AN/SQR-19 hoist for installation aboard non-variable depth sonar ships (FY 1990 \$6.2 million; FY 1991 \$13.7 million).

Anti-Submarine Warfare Electronics (Submarine) (P-1 Line Items 69 and 71 & 72)

(\$ In Thousands)	
FY 1990	FY 1991
\$210,573	\$256,532

The request includes \$21.9 million in FY 1990 and \$27.4 million in FY 1991 for Submarine Acoustic Warfare Systems (SAWS) which will provide an enhanced survival capability for submarines to use against enemy torpedoes and a means to reduce the effectiveness of enemy sensors. These funds also provide for procurement of AN/FLR-14/BQR-15 Interface Engineering Changes, procurement of the Acoustic Device Countermeasure (ADC) MK-1 and MK-2 NAE Beacons (MK3); AN/BQH-7 engineering changes and expendable probes, AN/WLR-9/12 engineering changes and the Countermeasure Set Acoustic (CSA) MK 2 Mod 0 for SSBNs and CSA Mk MOD 1 for SSN-637 class submarines, AIR display engineering changes, ADC MK 3, associated SHIPALTS/ECPS and production support. \$39.7 million in FY 1990 is budgeted to backfit one SSN-688 class submarines with Wide Aperture Arrays (VAA) in

addition to \$148.9 million for an AN/BSY-2 Maintenance Trainer. \$84.6 million is budgeted in FY 1991 to procure a Software Maintenance Facility and Module Screening Repair Activity equipment for BSY-1 in addition to \$144.4 million for a BSY-2 Software Support Facility. In addition, \$.1 million in FY 1990 and \$.2 million in FY 1991 are requested for the Acoustic Communications system, a multi-phase program which provides improved tactical acoustic communications systems for the three primary Anti-Submarine Warfare platforms (aircraft, surface ships, and submarines).

Anti-Submarine Warfare Electronics (Aviation) (P-1 Line Items 78 and 79)

(\$ In Thousands)	
FY 1990	FY 1991
\$19,192	\$16,611

These funds will procure reliability and operability improvements to tactical ADP equipment and will provide for continued production of UYQ-21 displays in FY 1990 and FY 1991 as well as continued procurement of improvements to the Acoustic Analysis subsystem and UYQ-21 displays. All of these subsystems and displays are components of the Carrier ASW Module of the Carrier Combat Direction System (FY 1990 \$4.1 million; FY 1991 \$13.3 million). The request also includes resources to support procurement of various equipments which support the ASW Operations Center (ASWOCs) which is the land based terminal for ASW area commanders in the overall Navy Command Control System (NCCS). (FY 1990 \$15.1 million; FY 1991 \$3.3 million).

Anti-Submarine Warfare Electronics (Surveillance) (P-1 Line Items 73 and 77)

(\$ In Thousands)	
FY 1990	FY 1991
\$36,099	\$33,685

These funds will support both the Sound Surveillance System (SOSUS) and the Towed Array Sensor (SURTASS) programs. Specific items to be procured in SOSUS include ship improvement equipment, cable replacement and engineering, trainer hardware and configuration changes, searchlight processing, cable and shore electronics (FY 1990 \$20.9 million; FY 1991 \$31.3 million). The funds requested in FY 1990 and FY 1991 for SURTASS will procure shore electronic units, back-up arrays, high ambient array kits, field changes modifications, and equipment for a second trainer and will also provide for procurement of special project hardware. (\$15.2 million in FY 1990; \$2.4 million in FY 1991).

Electronic Warfare Equipment (P-1 Line Items 80-85)

(\$ In Thousands)	
FY 1990	FY 1991
\$89,077	\$105,534

The FY 1990 and FY 1991 Electronic Warfare procurement provides the Fleet with systems that have the capability of detecting overt electromagnetic emissions through passive means. Specific systems to be procured include the AN/SLQ-32, a family of modular shipborne electronic warfare equipments to be installed in most combatants and auxiliaries in the surface Navy. \$70.4 million in FY 1990 will procure five AN/SLQ-32(V)3 systems and Electronic Warfare Improvements as follows: Direction Finding (DF) Accuracy Improvement (Band 1), Electronic Support Measures (ESM) Sensitivity Improvements (Band 1 and 3), Band 3 ESM HAT, Antenna Enclosure Improvements, and Electromagnetic Interference (EMI) Improvements. \$92.5 million in FY 1991 will procure six AN/SLQ-32(V)3 systems, and EW Improvements. The Integrated Cover and Deception Systems (ICADS) provides electronic equipment for coordinated cover and deception capabilities to the

Battle Group Commanders. \$3.7 million budgeted in FY 1990 and \$3.6 million in FY 1991 are for the modernization of 6 AN/SSQ-74 systems and for a land based test facility for the modernized AN/SSQ-74 system. The Electronic Warfare Support Equipment procures equipment and devices to (1) maintain the integrity of USN C3 networks and targeting systems by preventing adversary access, (2) assess the performance and stability of USN communications links/networks, radars and electronic countermeasures for airborne and shipboard electromagnetic systems, and (3) simulate hostile electronic countermeasures and weapons targeting functions. \$.5 million in FY 1990 and \$.7 million in FY 1991 procure reprogrammable terminals, processors and printers. \$.8 million budgeted in FY 1990 and \$.6 million budgeted in FY 1991 are for procurement of Chaff Buoys, Active Electronic Buoys (AEB), and DLF-1/2 Buoys. The AN/WLR-8(V)2 is a tactical Electronic Warfare Support Measures receiver for the SSN 688 class submarines providing intercept, surveillance and signal parameter analysis of the electromagnetic signals for threat warning. \$.8 million budgeted in FY 1990 and \$.2 million budgeted in FY 1991 provides for the procurement of AN/WLR-8 field change kits.

Reconnaissance Equipment (P-1 Line Items 86-89)

(\$ In Thousands)	
FY 1990	FY 1991
\$ 34,445	\$ 24,805

This funding will provide the tactical capability to detect, locate and identify hostile targets at long range and input this information into the ship's Tactical Data Systems. \$27.5 million budgeted in FY 1990 and \$13.1 million in 1991 are for procurement of Combat Direction Finding Systems. \$1.4 million budgeted in FY 1990 is for procurement of Combat Cryptologic Support Consoles (CCSC). \$.5 million budgeted in FY 1990 and \$11.7 million in FY 1991 is for procurement of equipment to update the intelligence centers in Aircraft Carriers and other Ships.

Submarine Surveillance Equipment (P-1 Line Items 90-92)

(\$ In Thousands)	
FY 1990	FY 1991
<u>\$18,413</u>	<u>\$30,957</u>

The funding requested provides for special equipment in support of submarine surveillance operations. \$16.0 million budgeted in FY 1990 and \$29.8 million budgeted in FY 1991 are for procurement of modifications to the existing AN/WLQ-4(V) installed on the SSN-637 Class submarines and Mini-N-Suite signal intelligence augmentation modification kits, both installed on the SSN-637 Class submarines. \$2.4 million budgeted in FY 1990 and \$1.2 million in FY 1991 are for the procurement of unique equipments that are maintained in limited quantities at Submarine Surveillance Equipment Program Support Facilities for use onboard nuclear attack submarines as well as for procurement of improved power supplies for AN/WLR-8(V)2 systems.

Other Shipboard Electronic Equipment (P-1 Line Items 93 - 102)

(\$ In Thousands)	
FY 1990	FY 1991
<u>\$210,289</u>	<u>\$339,801</u>

\$66.6 million budgeted in FY 1990 and \$106.8 million budgeted in FY 1991 provides for procurement of improvements to the Navy Tactical Data System (NTDS) which permits major warships rapid integration of ship sensor information, analysis and display of tactical information and designation of weapon systems to force threats. \$95.7 million budgeted in FY 1990 and \$147.9 million budgeted in FY 1991 are for electronic equipment for the TRIDENT Training Facility (TRITRAFAC), in addition to upgrading the AN/BQQ-6 sonars to the AN/BQQ-5E configuration. The request also includes resources to support procurement of equipment for the Armed Forces Radio and Television Service (AFRTS) which operates radio and television outlets for the shipboard information training and entertainment of United States servicemen and their dependents at sea or on shore (FY 1990 \$5.7 million; FY 1991 \$2.2 million). \$17.8 million budgeted in FY 1990 and \$11.3 million budgeted in FY 1991 are for procurement of mine hunting sonars for Minesweeping Boats (MSBs), route survey sonars for Ocean going Minesweepers (MSOs), and precise navigation equipment.

\$7.2 million budgeted in FY 1990 and \$14.3 million budgeted in FY 1991 are for procurement of shipboard and manpack receiver equipment for the NAVSTAR Global Positioning System (GPS), a joint service program which will provide a continuous, world-wide three-dimensional positioning/navigation capacity to the operational forces. \$1.2 million budgeted in FY 1990 and \$1.0 million budgeted in FY 1991 are for procurement of the Link 11 Programmable Data Terminal Set. \$16.1 million budgeted in FY 1990 and \$20.9 million budgeted in FY 1991 are for procurement of Tactical Flag Command Centers (TFCC) which support the tactical commander by receiving and displaying information relative to the current tactical situation. Also, beginning in FY 1991, \$35.6 million will procure Link 16 terminals that will provide the Navy with a more secure, higher data rate system for tactical data and voice communications.

Training Equipment (P-1 Line Items 103-105)

(\$ In Thousands)	
FY 1990	FY 1991
<u>\$2,295</u>	<u>\$17,066</u>

\$2.3 million budgeted in FY 1990 and \$17.1 million budgeted in FY 1991 provide for procurement of equipment to satisfy initial training requirements developed through the Navy Training Plan process. This equipment will give the Navy the capability to train officer, operator and maintenance personnel on new, significantly modified equipment for which no Navy training is currently available. It also satisfies requirements to expand the Navy training capability on existing equipment to meet heavier needs for trained personnel in the fleet.

Aviation Electronic Equipment (P-1 Line Items 106-114)

	(\$ In Thousands)
FY 1990	<u>\$77,751</u>
FY 1991	<u>\$37,051</u>

The FY 1990 and FY 1991 request for Aviation Electronic Equipment provides for procurement of electronic equipment to support Naval and Marine aviation shore activities, shipboard aircraft control equipment and secure identification systems. The Marine Air Traffic Control and Landing System (MATCALS) will provide a fully automatic air traffic control and landing system. \$15.2 million budgeted in FY 1990 and \$12.1 million budgeted in FY 1991 are for the procurement of three AN/TPS-73 radars, three Shipboard Marine Remote Area Approach and Landing Systems (SMRAALS) and various Marine squadron support equipment. The Shipboard Air Traffic Control (SATC) program will improve air traffic control in the Fleet. SATC funding of \$6.8 million in FY 1990 procures two amphibious Air Traffic Control (AATC) Direct Altitude Identify Readout (DAIR) systems for LHAs. The \$5.4 million requested in FY 1991 will procure two AATC field change kits to back-fit into existing Carrier Air Traffic Control Center (CATCC) systems to provide commonality in support equipment. In FY 1990 the \$6.6 million for the Automatic Carrier Landing System (ACLS) program procures one AN/SPN-46(V) System to replace aging AN/SPN-42A ACLS systems. In FY 1991, \$.9 million is requested for one AN/SPN-35A field change kit. The Tactical Air Navigation (TACAN) system is the primary navigation system used by naval aircraft worldwide. \$4.1 million in FY 1990 provides for the procurement of OE-273(V)/URN antennas and AN/URN-25 beacon transmitters to upgrade short-range navigation equipment on various ship classes. \$1.4 million requested in FY 1991 will procure an additional 13 OE-273(V)/URN antennas. The Identification Systems program provides various improvements to the air traffic control radar systems, Identification Friend or Foe, MK XII system (AIMS) which is used as a secure identification system on all major combatant ships, selected auxiliaries, patrol craft and selected Coast Guard Ships. Procurements totaling \$10.8 million in FY 1990 include AN/UPM MK XII test sets, AN/UPX-25 interrogator systems, MK-8758A interference blankers, AN/UPX-27 interrogator sets, AN/UPA-59B video decoder groups, AN/UPX-24 remote control indicator modifications for back-fit on AEGIS ships, and various MK XII AIMS improvements to insure that all systems are properly interfaced and capable of optimal operation. The FY 1991 request of \$8.7 million will procure 81 AN/UPM MK XII test set replacements, 9 AN/UPX-24 remote indicator modifications for back-fit on AEGIS ships, and MK XII AIMS improvements designed to insure systems interface and enhance reliability and maintainability.

The Air Station Support Equipment program addresses air traffic control requirements and enhances flight safety at Navy and Marine Corps Air Stations. The budget request for Air Station Support Equipment includes \$6.0 million in FY 1990 and \$3.5 million in FY 1991 for Fiber Optic Cable systems, 75 multi-channel recorder replacements, 20 AN/UPM-137A test set replacements, eight AN/TPN-30 Radar Sets, and various communication system replacements. \$1.4 million budgeted in FY 1990 and \$1.4 million budgeted in FY 1991 are to procure 53 NOVA 3/12 computer replacements with computer systems integration and modification kits for the NOVA 3/12 computer display processor. \$3.5 million is budgeted in FY 1991 for a service life extension program for the AN/FPN-63 precision approach radar to keep it operational until replaced by the Microwave Landing Systems (MLS). The MLS is a joint DOT/DOD/NASA project to create a common civil/military precision landing system which will overcome the limitations of existing landing systems. \$26.8 million budgeted in FY 1990 and \$3.1 million budgeted in FY 1991 are for procurement of Fleet Area Control and Surveillance Facilities (FACSFAC) communication modernizations, FACSFAC Air Control Tracking System (FACTS) modifications, and increased hardware and software maintenance capability and upgrade of the Joint Air Reconnaissance Control Center (JARCC).

Other Shore Electronic Equipment (Command and Control) (P-1 Line Items 115-119)

(\$ In Thousands)	
FY 1990	FY 1991
\$35,883	\$34,923

The funds budgeted for Tactical Receive Equipment (TADIX-B), \$11.8 million in FY 1990 and \$20.7 million in FY 1991, will provide designated platforms with the capability to receive near real-time contact data reports via a UHF Communications Link. FY 1991 funds will also procure electronic equipment for replacement of obsolete equipment of the Navy Space Surveillance System to support unaltered real-time detection of non-radiating satellites and other objects which pass through multistatic continuous wave radar beams (FY 1991 \$2.2 million). Additional funding includes resources to support the Space System Processing System, procurement of special computer hardware and software necessary to improve information processing and generation of highly classified reports for use by Operational Navy Command (FY 1990 \$1.1 million). The Navy Command and Control System (NCCS) Ashore program (\$22.8 million in FY 1990 and \$11.9 million in FY 1991) provides for the coordination and integration of shore based command centers and their respective systems; resources will procure baseline command center upgrades, communications hardware, maritime defense zone C3 equipment, correlation upgrade equipment, replacement equipments, and formatted message origination

systems. \$1 million budgeted in FY 1990 and \$0.2 million budgeted in FY 1991 provides for LINK 4 upgrades for the Multiple Unit Link Eleven Test and Operational Training System (MULTOTS), a transportable system to validate Link 11 interoperability on Tactical Data Systems equipped ships and aircraft.

Other Shore Electronic Equipment (Miscellaneous) (P-1 Line Items 120-126)

	(\$ In Thousands)
FY 1990	\$73,263
FY 1991	\$134,669

Funding of \$10.8 million in FY 1990 and \$80.6 million in FY 1991 is for procurement of one wide area surveillance system (Over the Horizon Radars) to provide targeting information to tactical commanders afloat. The request also includes \$4.0 million budgeted in FY 1990 and \$1.9 million budgeted in FY 1991 for Radiation Detection Indication and Computation Equipment Program (RADIAC) to detect and measure nuclear and ionizing radiation and to convert these measurements into meaningful terms so that Navy personnel can adequately control personnel exposure to those radiations. Funds in the amount of \$17.1 million in FY 1990 and \$18.7 million in FY 1991 are for the procurement of General Purpose Electronic Test Equipment (GPETE) for initial outfitting of new or modified Fleet and shore electronic equipment. Funding of \$4.0 million on FY 1990 and \$3.0 million in FY 1991 is for procurement of equipment required for the Integrated Combat System Test Facility (ICSTF), located at San Diego, California, the only permanent Navy Test facility for integrated shipboard combat system certification and for continuation of engineering for modification of combat systems in existing ships. Funding of \$7.4 million budgeted in FY 1990 and \$8.2 million in FY 1991 is for procurement of a new generation of signal generators and oscillator calibrators capable of calibrating up to 18 GHz to support test equipment for FFG-7 and DD-963 class ships and TRIDENT submarines and up to 40 GHz to support test equipment for SSN-637 and SSN-688 class submarines. Funding of \$9.4 million in FY 1990 and \$10.5 million in FY 1991 is for procurement of emergency field change kits and hardware devices to solve Electromagnetic Interference (EMI) problems in electronic systems and equipments throughout the operating forces. The FY 1990 and FY 1991 requests also include resources to support procurement of replacements for deteriorating and obsolete management equipment, for facilitization of the AN/UYS-43 and 44 depots and for procurement of AN/UYS-1 and 2 hardware (FY 1990 \$20.6 million; FY 1991 \$11.8 million).

Shipboard Communications Equipment (P-1 Line Items 127-134)

(\$ In Thousands)	
FY 1990	FY 1991
<u>\$33,463</u>	<u>\$45,100</u>

Funding of \$5.3 million in FY 1990 is for the High Frequency (HF) and Ultra High Frequency (UHF) Shipboard Communications programs to update the capabilities of the current HF/UHF Communications Systems. Funding of \$23.0 million in FY 1991 continues these procurement efforts. Funds in the amount of \$9.7 million in FY 1990 and \$5.7 million in FY 1991 are for procurement of portable specialized radios to support the unique air, sea and land environment of the Explosive Ordnance Disposal (EOD) mission as well as funding for modernization of Naval Beach/Group Construction Force Communications/Tactical Air Control Squadrons (TACRONS) to remain compatible with the Fleet Marine Force and the Amphibious Surface Fleet. Funding of \$10.0 million in FY 1990 and \$10.9 million in FY 1991 is for procurement of communications systems to automate message processing and distribution functions aboard ship. Funding of \$5.5 million in FY 1990 and \$3.7 million in FY 1991 is for completion of communications suites aboard ship. Funding of \$2.8 million in FY 1990 and \$1.8 million in FY 1991 is to procure the flight deck communications system.

Submarine Communications Equipment (P-1 Line Items 135-138)

(\$ In Thousands)	
FY 1990	FY 1991
\$17,766	\$24,241

These resources will procure communications equipment for Command and Control of the Fleet Ballistic Missile (FBM) and Attack Submarine Forces. Funds in the amount of \$3.7 million in FY 1990 and \$1.3 million in FY 1991 are for procurement of Low Frequency/Very Low Frequency (LF/VLF) and communications hardware, upgrades and high efficiency amplifiers. Funding of \$4.5 million in FY 1990 and \$1.7 million in FY 1991 is for procurement of the Integrated Submarine Automated Broadcast Processing System Phases I and II. These requirements are part of the VERDIN VLF communications system. Funding of \$9.5 million in FY 1990 and \$9.7 in FY 1991 is for procurement of submarine communications equipment consisting of antennas, mast assemblies and buoyant cable antennas. Beginning in FY 1991 funding of \$11.5 million is for the procurement of miniaturized VLF design data processing receiving sets that replace the current VLF systems.

Satellite Communications Equipment (P-1 Line Items 139-140)

(\$ In Thousands)	
FY 1990	FY 1991
\$104,783	\$129,491

FY 1990 and FY 1991 Satellite Communications procurements provide for adequate command, control and communications among shore stations, ships, submarines and selected aircraft through the Ultra High Frequency (UHF), Super High Frequency (SHF), and Extremely High Frequency (EHF) bands. Funding of \$104.8 million in FY 1990 and \$129.5 million in FY 1991 is for procurement of Demand Assigned Multiple Access (DAMA) systems; Submarine SATCOM Communications equipment; Battle Group SATCOM terminals consisting primarily of Officer in Tactical Command Information Exchange Subsystem (OTCIXS) and Tactical Data Information Exchange Subsystem (TADIXS); Radio Direction Finding Communications (RDF Comms); support equipment for the SHF shipboard terminals; EHF jam resistant low probability of intercept connectivity terminals and replacement coder equipment to make Navy ships interoperable with Army and Air Force Secure Voice systems.

Shore Communications Equipment (P-1 Line Items 141-149)

(\$ In Thousands)	
FY 1990	FY 1991
\$12,934	\$13,831

Funding of \$1.4 million budgeted in FY 1990 and \$.6 million budgeted in FY 1991 funds the Joint Service Modernization of the Joint Chiefs of Staff (JCS) Communications equipment. Funding of \$.3 million in FY 1990 and \$.1 million in FY 1991 is for procurement of emergency generators and Uninterruptable Power Systems for installation at various Naval Communication activities worldwide. Funding of \$.3 million in FY 1990 and \$.9 million in FY 1991 is for procurement of equipment and field change kits to replace obsolete High Frequency (HF) assets used to enable Naval Telecommunications to be viable in the absence of satellite communications. Funding in the amount of \$.3 million in FY 1990 is for procurement of manual suite upgrades which will provide functional standardization of Technical Control Facilities. Funding of \$1.2 million in FY 1990 and \$.7 million in FY 1991 is for procurement of AN/FCC-100's which will convert the worldwide Defense Communications system to all digital terminals. Funding of \$.4 million in FY 1990 is for procurement of microwave facilities in the worldwide Defense Communications System (DCS). Funding of \$.3 million in FY 1991 is for procurement of Remote Automated Terminals. Funding of \$.5 million in FY 1990 and \$.1 million in FY 1991 is for procurement of various communications equipment which supports the Worldwide Military Command and CONTROL System (WVMCCS). Funding of \$.4 million in FY 1990 and \$.2 million in FY 1991 is for procurement of various other value items to support numerous Naval Shore Telecommunications Programs.

Cryptographic Equipment (P-1 Line Items 150-164)

(\$ In Thousands)	
FY 1990	FY 1991
\$116,552	\$159,141

The FY 1990 and FY 1991 request will procure sufficient secure voice equipment to provide secure voice protection to an additional share of Navy's identified critical narrowband/wideband secure voice requirements. Funding of \$1.2 million in FY 1990 is for procurement of the Single Audio System (SAS), a system where all shipboard radio voice subscribers have access to either a plain or cryptographically covered circuit, on an as required and programmed basis. The SAS will provide manual voice switching suites for smaller ships and an automated switching suite for larger ships. Both switching systems utilize a switch which is modularly expandable to suit the needs of various platforms. Funding of \$19.2 million in FY 1990 and \$21.3 million in FY 1991 is for procurement of STU-III equipments which will provide subscriber expansion and improvement over the secure voice capability presently provided by AUTOSEVOCOM I. New features include digital transmission, end-to-end secure voice with conferencing, better voice quality, and lower bit rate. Funding of \$23.4 million in FY 1990 and \$35.8 million in FY 1991 is included for procurement of the TSEC/KG-84, a general purpose key generator capable of satisfying a wide variety of requirements which is designed to serve as the future standard link encryption device for low to medium speed record and/or data system. Funding of \$9.9 million in FY 1990 and \$14.7 million in FY 1991 is requested for TSEC/KY-57/58, a wideband, push-to-talk (half-duplex) tactical speech security system for use in VHF/UHF communications. Funding of \$26.4 million in FY 1990 and \$48.9 million in FY 1991 is for procurement of the TSEC/KYV-5, the Cryptographic module for the Advance Narrowband Digital Voice Terminal (ANDVT) which satisfies requirements for secure narrowband communications which cannot be met by existing equipment. Funding of \$8.0 million in FY 1990 and \$9.6 million in FY 1991 is for procurement of the TSEC/KG-81, a full-duplex, high speed digital data encryption systems for bulk encryption of the most vital DCS links. Funding of \$3.8 million in FY 1990 and \$4.2 million in FY 1991 is for procurement of Blacker Cryptographic material which provides multilevel security capabilities to support Command and Control systems. Funding of \$5.5 million in FY 1990 and \$6.5 million in FY 1991 is for procurement of the TSEC/KGV-11, a general purpose communications security module designed for use with wide spectrum communications.

Funding of \$1.7 million in FY 1990 and \$5.4 million in FY 1991 is for procurement of communications security (COMSEC) items of relatively low dollar value to meet special operational requirements. Funding of \$15.0 million in FY 1990 and \$4.6 million in FY 1991 is for procurement of COMSEC devices for the TRI-TAC switches. Funding of \$4.4 million in FY 1990 and \$4.4 million in FY 1991 is for procurement of the TEMPEST test equipment. Funding of \$2.2 million in FY 1990 and \$1.1 million in FY 1991 is for procurement of the KYK-13 battery operated transfer devices and the KOI-18 which is a lightweight battery operated device for reading light-level punched type. Funding of \$2.2 million in FY 1991 is for procurement of the KGV-8, a general purpose half-duplex module which supports COMSEC and transmission security (TRANSEC) for the Navy and Marine Corps. Funding of \$5.0 million in FY 1990 and \$4.4 million in FY 1991 is for procurement of the KGR-96 which provides encryption/decryption for the TADIX-B satellite data link.

Cryptologic Equipment (P-1 Line Items 165-170)

(\$ In Thousands)	
FY 1990	FY 1991
\$3,859	\$1,240

These resources provide equipment to support Tactical Cryptologic missions and functions. Funding of \$1.3 million in FY 1990 and \$4.6 million in FY 1991 continues procurement of AN/UUA-7 Replacement Suites which allow shipboard and Navy shore sites to be interoperable with Air Force Communications networks that will pass Airborne derived reconnaissance via HF. Funding of \$4.8 million in FY 1990 and \$1.1 million in FY 1991 continues procurement of various low cost replacement and cryptologic training equipments for use at U.S. Navy shore sites, training commands, and aboard U.S. Navy combatants. Funding of \$4.6 million in FY 1990 and \$4.4 million in FY 1991 procures cryptologic systems for use at U.S. Navy ashore reserve training sites. Funding of \$2.2 million in FY 1990 and \$1.1 million in FY 1991 continues procurement of cryptologic systems for use at U.S. Navy ashore reserve training sites to ensure that cryptologic technicians maintain proficiency in various languages and manual Morse. Funding of \$1.0 million in FY 1990 continues procurement of cryptologic support systems to be installed at various worldwide shore sites which are used in conjunction with afloat cryptologic systems to ensure that accurate tactical data bases are maintained.

Other Electronic Support (P-1 Line Items 171-174)

(\$ In Thousands)	
FY 1990	FY 1991
<u>\$4,305</u>	<u>\$3,857</u>

This funding will procure critical repairable equipments in support of planned maintenance schedules and corrective maintenance actions for the FFG (LO-MIX) and DD (Engineering Operation Cycle) class ships, dedicated test stations, industrial plant equipment, and test jigs and fixtures for selected depot rework facilities in support of new maintenance strategies for the FFG and DD (EOC) Class ships (FY 1990 \$3.7 million; FY 1991 \$3.4 million). In addition, funding of \$.6 million in FY 1990 and \$.4 million in FY 1991 is for procurement of war reserve communications equipment, RADIAC and ancillary equipments for Advance Base Functional Components which are planned groupings of personnel, material and equipment tailored to support overseas base deployment.

Drug Interdiction Support (P-1 Line Items 175 & 176)

(\$ In Thousands)	
FY 1990	FY 1991
<u>\$4,900</u>	<u>\$ 0</u>

Funding of \$4.9 million in FY 1990 provides for the continued procurement of communications equipment for use by Department of Defense (DOD) and non-DOD agencies in coordinating the Drug Interdiction efforts both in the Atlantic and Pacific.

BUDGET ACTIVITY 3: AVIATION SUPPORT EQUIPMENT
SUMMARY OF BUDGET PLAN
(In Thousands)

Budget Plan
(Amounts for Procurement Actions Programmed)

	<u>FY 1989</u>	<u>FY 1990</u>	<u>FY 1991</u>	<u>Justification</u>
	<u>Actual</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Page</u>
Sonobuoys	\$132,869	\$158,919	\$73,287	46
General Purpose Bombs	104,180	120,725	-0-	47
Air Launched Rockets	8,772	17,196	-0-	48
Aircraft Machine Gun Ammunition	12,915	22,958	-0-	48
Bigeye Chemical Weapon	3,200	-0-	-0-	48
GATOR	12,230	9,480	-0-	48
Miscellaneous Ordnance and Support	53,966	76,165	70,443	48
Weapons Range Support Equipment	51,226	49,587	52,537	49
Aircraft Launching and Recovery				
Equipment	28,292	40,784	12,180	50
Aircraft Rearming Equipment	5,936	14,278	10,575	50
Airborne Mine Countermeasures				
Equipment	20,855	15,523	7,988	51
LAMPS MK III Shipboard Equipment	7,850	13,970	5,514	51
Other Aviation Support	45,408	38,196	51,263	52
Total Budget Plan	\$487,699	\$577,781	\$283,787	

BUDGET ACTIVITY 3: AVIATION SUPPORT EQUIPMENT

	(\$ in Thousands)
FY 1991 Estimate	\$283,787
FY 1990 Estimate	\$577,781
FY 1989 Actual	\$487,699

Purpose and Scope of Work

Budget Activity 3 air launched anti-submarine warfare (ASW) sensors, general support equipment associated with aircraft and other aviation support which includes ground electronics equipment, aircraft launching and retrieving equipment, photographic equipment, reconnaissance and electronic warfare processing and analysis equipment and miscellaneous other categories. Beginning in FY 1991 financing for ordnance and air-launched expendable munitions has been transferred to the Weapons Procurement, Navy appropriation. Specific programs transferred include: General Purpose Bombs, Practice Bombs, 2.75 Inch Rockets, Aircraft Machine Gun Ammunition, and the Bigeye Chemical Weapon.

Justification of Funds

Sonobuoys (P-1 Line Item 177-182)

	(\$ in Thousands)
FY 1990	\$158,919
FY 1991	\$ 73,287

The FY 1990 and FY 1991 Sonobuoy procurement has been computed considering the number of ASW carrier air groups and shore based ASW patrol squadrons to be supported, actual and planned peace-time usage for these forces and the necessary training allowance requirements. User aircraft include the S-3A, P-3, SH-2D, and SH-3 series. Specific sonobuoys to be procured in FY 1990 and FY 1991 include the AN/SSQ-53 (DIFAR), a passive directional sonobuoy used during the target localization phase of the air ASW Mission (FY 1990 \$74.4 million; FY 1991 \$45.6 million), the AN/SSQ-62 (DICASS) Sonobuoy, an active directional sonobuoy (FY 1990 \$34.8 million; FY 1991 \$23.8 million), the AN/SSQ-36 Bathythermograph Sonobuoy, an air-dropped bathythermograph transmitting set

that provides a vertical water temperature profile (FY 1990 \$2.0 million); (FY 1991 \$2.1 million); and the AN/SSQ-77 (VLAD) Sonobuoy, a passive directional sonobuoy utilizing a line array of omni-directional hydrophones and a DIFAR element. The directional beam patterns are formed from the line array to discriminate against noise and the DIFAR enables determination of the azimuthal bearing of detected sound (FY 1990 \$47.7 million). The FY 1991 request also includes funding to support procurement of Signal Underwater Sound (SUS) devices which are expendable, high energy acoustic sources used for many applications including bottom mapping, long range signal transmission and position fixing (FY 1991 \$1.8 million).

General Purpose Bombs (P-1 Line Items 183, 188)

(\$ in Thousands)	
FY 1990	FY 1991
\$120,725	\$ -0-

These funds will procure various components for the Navy's present MK-80 series general purpose bombs including fins/retarders, fuzes, solid nose plugs, and arming wire kits and Dexter clips, and also several types of practice bombs. Beginning in FY 1991 the program has been transferred to the Weapons Procurement, Navy appropriation.

Air Launched Rockets (P-1 Line Item 186)

(\$ in Thousands)	
FY 1990	FY 1991
\$17,196	\$ -0-

This category consists of the 2.75 Inch rocket system, an air-to-ground weapon consisting of a variety of warheads fired from a seven/nineteen (2.75 inch) cylindrical launcher. This rocket system is cleared for use on the following USN and USMC aircraft; A4, A6, A7, F4, F/A-18, AH1, AV-8 and OV10. Beginning in FY 1991 this program has been transferred to the Weapons Procurement, Navy appropriation.

Aircraft Machine Gun Ammunition (P-1 Line Item 187)

(\$ in Thousands)	
FY 1990	FY 1991
<u>\$22,958</u>	<u>\$ -0-</u>

This category includes procurement of 20mm and 25mm ammunition used with various aircraft (A-7E, F-14, F/A-18, AH-1, and AV-8B) gun systems. Beginning in FY 1991 this program has been transferred to the Weapons Procurement, Navy appropriation.

GATOR (P-1 Line Item 195)

(\$ in Thousands)	
FY 1990	FY 1991
<u>\$ 9,480</u>	<u>\$ -0-</u>

The \$9.5 million appropriated in FY 1990 will procure GATOR CBU-78 500 pound cluster bombs. The GATOR weapon consists of a MK-7 dispenser that contains a mixture of air-scatterable anti-tank and anti-personnel land mines. It is used in support of the Marine Corps amphibious support mission and can be fired from a variety of aircraft.

Miscellaneous Ordnance and Support (P-1 Line Items 189-192, 194)

(\$ in Thousands)	
FY 1990	FY 1991
<u>\$76,165</u>	<u>\$70,443</u>

Budgeted procurements will include chaff decoy heads for electronic countermeasures impulse cartridges, and other miscellaneous ordnance and support. Funding of \$23.7 million in FY 1990 and \$16.4 million in FY 1991 is for the procurement of impulse cartridges used for ejecting air-launched weapons and other cartridge-actuated devices. Funding of \$4.3 million in FY 1990 and \$3.2 million in FY 1991 is requested for rocket motors and catapults used for ejecting aircrewmembers from disabled

aircraft. Funding of \$35.1 million in FY 1990 and \$41.3 million in FY 1991 is for procurement of airborne expendable countermeasures including chaff, infrared flares and expendable jammers to meet training and war reserve (mobilization) requirements. Funding of \$6.5 million in FY 1990 and \$3.3 million in FY 1991 is for Jet-Assisted Take Off (JATO) rockets used to launch aircraft and targets and to propel sleds used in testing. The remaining \$6.5 million in FY 1990 and \$6.3 million in FY 1991 are for procurement of Marine Location Markers which are required for location of sonobuoys in anti-submarine operations and for other general applications.

Weapons Range Support Equipment (P-1 Line Item 197)

(\$ in Thousands)	
FY 1990	FY 1991
\$49,587	\$52,537

This line provides the resources to implement the Navy Fleet Training Range Instrumentation Five Year Program Plan. Procurements in FY 1990 include the following: (1) \$6.2 million for Aircrew Electronic Warfare Training Range systems at Fallon, NV and Cherry Point, NC; (2) \$3.8 million for the procurement of System Replacement and Modernization equipment; (3) \$12.6 million for the upgrade of the Oceana TACTS range and the procurement of TACTS Display and Debriefing Subsystems for EL Centro and Miramar sites; (4) \$5.6 million for the upgrade of the ASW underwater range in Southern California (SOCAL); and (5) \$10.1 million for the upgrade of the Atlantic Fleet Weapons Training Facility (AFWTF) Naval Tactical Data Systems (NTDS). In addition, \$11.3 million is required for production engineering and ILS efforts. Funds requested in FY 1991 will procure Range Electronic Warfare Simulator systems for AFWTF (\$6.6 million), Aircrew Electronic Warfare Training Range systems at Fallon, NV and Cherry Point, NC (\$10.3 million), System Replacement and Modernization equipment (\$4.0 million), TACTS systems for Beaufort, Cecil Field, Cherry Point, and Miramar (\$5.8 million), the upgrade of the Pacific Missile Range Facility's Navy Tactical Data Systems (NTDS) (\$12.0 million), and the upgrade of the AFWTF ASW tracking system to enable simultaneous tracking of 12 instead of the present 8 instrumented objects (\$1.9 million). In addition, \$11.8 million is required for production engineering and ILS efforts.

Aircraft Launching and Recovery Equipment (P-1 Line Items 198, 200)

(\$ in Thousands)	
FY 1990	FY 1991
<u>\$40,784</u>	<u>\$12,180</u>

Catapult, Arresting Gear, and Visual Landing Aids Support for the Navy's aircraft carriers and other air-capable ships, and the Marine Corps' Expenditinary Airfield (EAF) systems are funded under this program. Funding of \$36.3 million in FY 1990 and \$7.3 million in FY 1991 is for the procurement of major catapult, arresting gear and visual landing aids equipment for aircraft carriers and other aircraft capable ships. Funding of \$4.5 million in FY 1990 and \$4.9 million in FY 1991 are for EAF support equipment to enhance maintainability, reliability and safety of flight operations, and to keep pace with advanced aircraft requirements by correcting known deficiencies and by modernizing EAF equipment.

Aircraft Rearming Equipment (P-1 Line Item 199)

(\$ in Thousands)	
FY 1990	FY 1991
<u>\$14,278</u>	<u>\$10,575</u>

The Aircraft Rearming Equipment program provides armament support equipment (ASE) and weapons support equipment (WSE) for use ashore and afloat to load and/or download air-launched weapons and to perform maintenance on aircraft-installed armament systems. WSE equipment is used to transport and perform maintenance on weapons and explosive ordnance components. ASE and WSE are utilized to accomplish the improved rearming rate (IPR) of A-6, EA-6, A-7, F-4, F-14, F-18, and AV-8 aircraft. The use of this equipment permits the rapid weapons loading and reloading of strike aircraft with a minimum number of flight deck personnel.

Airborne Mine Countermeasures Equipment (P-1 Line Item 204)

(\$ in Thousands)	
FY 1990	FY 1991
<u>\$15,523</u>	<u>\$ 7,988</u>

This program funds various mine countermeasures equipment operated by RH/CH-53D/MH-53E helicopters. Funds appropriated in FY 1990 will procure six sets of airborne mine countermeasures (AMCM) tow provision kits that provide aircraft with the capability to tow the AMCM systems, miscellaneous detachment support equipment for use by Naval and Naval Reserve forces, and hardware modifications. Funds requested in FY 1991 will procure 15 A/N37U-1 mechanical minesweeping systems that augment the MK-103 MOD 2 wire sweep system and hardware modifications.

LAMPS MK III Shipboard Equipment (P-1 Line Item 205)

(\$ in Thousands)	
FY 1990	FY 1991
<u>\$13,970</u>	<u>\$ 5,514</u>

Equipment to be installed in existing ships being backfitted with the LAMPS MK III weapon system is procured in this line item. \$2.1 million in FY 1990 and \$3.5 million in FY 1991 are requested to procure two and four AN/SRQ-4 units, respectively, shipboard terminal data transmission devices. Other requirements include system integration efforts (\$4.3 million in FY 1990 and \$.2 million in FY 1991), peculiar ground support equipment \$4.6 million in FY 1990 and \$.3 million in FY 1991) and various production engineering and integration logistics support items (\$3.0 million in FY 1990 and \$1.5 million in FY 1991).

Other Aviation Support (P-1 Line Items 201-203, 206-208)

(\$ in Thousands)	
FY 1990	FY 1991
<u>\$38,196</u>	<u>\$51,263</u>

Funds budgeted include the procurement of Meteorological equipment, Survival equipment, Reconnaissance equipment, Stock Surveillance equipment and Other Aviation Support equipment. Meteorological equipment to be procured in both FY 1990 and FY 1991 provides a cost effective means to receive/process/disseminate meteorological/oceanographical data and on-site, real time geographical capability to determine environmental factors currently affecting fleet and shore activities. Specifically, this equipment includes the AN/SMQ-11 Meteorological Data Satellite Receiver-Recorder and the Tactical Environmental Support System (TESS)/Shipboard Meteorological Oceanographic Observing Systems and the shorebased TESS (\$19.9 million in FY 1990; \$37.6 million in FY 1991). The \$6.4 million in FY 1990 and the \$4.6 million requested in FY 1991 for the Survival equipment program will finance procurement of PRC-112 Aircrew Survival Radios and PRC-125 Swimmers Radios and will also fund related support equipment, integrated logistics support and production support. The \$1.9 million in FY 1990 and the \$2.0 million requested in FY 1991 for the Reconnaissance Electronic Warfare, Special Operations and Naval Intelligence (REWSON) program will procure readout equipment for ship and shore reconnaissance squadrons surface and subsurface photo collection equipment, analytical equipment to support these collectors and equipment of a photographic and analytic nature for use by ship combatants. The Stock Surveillance equipment line provides funds for procurement of equipment needed to monitor, measure, and assess the condition of current Navy stocks of air-launched missiles and air-launched ordnance and ammunition (\$2.4 million in FY 1990 and \$1.2 million in FY 1991). Eighty percent of the funds support missile inventory quality evaluation (surveillance) efforts and twenty percent support air-launched ordnance evaluation, including bombs, rockets, and cartridge actuated devices. Material readiness factors such as reliability and serviceability are measured by this effort. The Other Aviation Support Equipment line funds miscellaneous programs (\$7.6 million in FY 1990 and \$5.9 million in FY 1991). Included are funds for procurement of fleet telemetry equipment which is used to receive, record and analyze missile telemetry performance data providing information to evaluate training/test exercises; collateral equipment in support of the Naval Air Systems Command and its field activities; a computerized Tactical Aircraft Mission Planning System (TAMPS) planned for installation in aviation-capable ships, air stations, aviation training sites, support facilities and deployed aviation units.

BUDGET ACTIVITY 4: ORDNANCE SUPPORT EQUIPMENT
SUMMARY OF BUDGET PLAN
(\$ In Thousands)

BUDGET PLAN
(Amounts for Procurement Actions Programmed)

	<u>FY 1989</u> Actual	<u>FY1990</u> ESTIMATE	<u>FY 1991</u> ESTIMATE	<u>JUSTIFICATION</u> PAGE
SHIP GUN AMMUNITION	\$111,640	\$130,055	\$ 0	54
SHIP GUN SYSTEMS EQUIPMENT	6,489	9,088	15,461	55
SHIP MISSILE SYSTEMS EQUIPMENT	296,405	304,009	289,537	55
FBM SUPPORT EQUIPMENT	336,714	60,190	106,575	57
ASW SUPPORT EQUIPMENT	145,020	72,060	85,484	57
OTHER ORDNANCE SUPPORT EQUIPMENT	28,809	27,889	29,367	58
OTHER EXPENDABLE ORDNANCE	126,528	129,754	74,212	58
TOTAL BUDGET PLAN	\$1,051,605	\$733,045	\$600,636	

BUDGET ACTIVITY 4: ORDNANCE SUPPORT EQUIPMENT

(\$ In Thousands)	
FY 1991 Estimate - \$	600,636
FY 1990 Estimate - \$	733,045
FY 1989 Actual - \$	1,051,605

Purpose and Scope of Work

Funds provided in this budget activity are for Ship Gun and Ship Missile Systems equipment, Fleet Ballistic Missile and Anti-Submarine Warfare Support equipment, and Other Ordnance Support equipment. Beginning in FY 1991, all ship gun ammunition and other expendable ammunition (non-SOF) programs have been transferred to Weapons Procurement, Navy. Additionally, all Special Operation Forces (SOF) ordnance funding has been transferred to Procurement, Defense Agencies.

Justification of Funds

Ship Gun Ammunition (P-1 Line Items 209-215)

(\$ In Thousands)	
FY 1990	FY 1991
\$130,055	\$ 0

The FY 1990 request of \$130.1 million for Ship Gun Ammunition is for procurement of Three-inch and Five-inch ammunition, 20mm ammunition for the Close-In Weapon System (CIWS), 76mm ammunition, Sixteen-inch ammunition, and Other Ship Gun ammunition. The primary mission for the 76mm ammunition is for use against air targets but it is also used against surface and shore targets. The Sixteen-inch ammunition is for use by battleships against surface and shore targets. The Five-inch ammunition is the most common and is used by nearly all of the Navy's combatant ships.

Ship Gun System Equipment (P-1 Line Item 216)

(\$ In Thousands)	
FY 1990	FY 1989
\$ 9,088	\$15,461

The FY 1990 request of \$9.1 million and the FY 1991 request for \$15.5 million are to procure Gun Fire Control equipment. The funds requested for Gun Fire Control equipment are for the procurement of equipment and ordnance alterations to improve reliability and maintainability of the MK-86 and MK-68/56 surface Gun Fire Control Systems installed on all surface combatants fitted with 5" naval guns.

Ship Missile Systems Equipment (P-1 Line Items 217-226)

(\$ In Thousands)	
FY 1990	FY 1991
\$304,009	\$289,537

The FY 1990 request of \$304.0 million and the FY 1991 request of \$289.5 million are for Ship Missile Systems (SMS) programs. The MK-92 Fire Control System request of \$15.7 million in FY 1990 and \$23.3 million in FY 1991 will provide for improved readiness of the MK-92 system. The FY 1990 and FY 1991 request of \$30.9 million and \$14.0 million respectively for Harpoon Support equipment will be used to procure Ordnance Alterations. The TERRIER Support equipment request of \$25.5 million in FY 1990 and \$15.1 million in FY 1991 will provide for modification to the TERRIER Missile Weapon Systems including Fire Control System MK-76, Guided Missile Launching System MK-10, and ancillary support equipment. These modifications provide for CG/SM-2 performance improvements (Standard Missile (Extended Range) Block I missile capability), New Threat Upgrade performance improvements (Standard Missile 2 (Extended Range) Block II missile capability) and associated reliability/maintainability/availability improvements in CG-16/26 and CGN-9/25/35 Class ships.

The requests in FY 1990 and FY 1991 of \$17.6 million and \$19.5 million, respectively, for the TARTAR Support equipment program are for improvements to the CGN/DDG/SM-2 Weapons Systems including Fire Control Radar Mods, Weapons Direction System (WDS MK-14), AN/SYR-1 Downlink Receiver and Ancillary Modification to provide capability to fire the SM-2 (MR) missile; and improvements to the Guided Missile Launching System MK-13 Mod 4 on the FFG-7 Class ships. The Point Defense Support equipment request of \$40.4 million in FY 1990 and \$30.0 million in FY 1991 will provide air defense of selected ships by upgrading the NATO SEASPARROW Surface Missile System including modifications to incorporate specific improvements to increase reliability. The request also includes procurement of the launch system to fire the RAM Missile. The \$1.0 million requested in FY 1990 and \$1.1 million requested in FY 1991 for Airborne ECM/ECCM will provide for equipment used to simulate projected enemy jamming tactics and techniques during Surface Warfare Systems evaluations and Fleet exercises. The AEGIS Support equipment request of \$43.6 million in FY 1990 and \$86.2 million in FY 1991 will provide shore based assets for the AEGIS Combat System/Educational Center to support the Battle readiness of AEGIS Cruisers including AEGIS Combat System Center equipment and AEGIS Educational Center equipment. The Surface TOMAHAWK Support equipment request of \$36.7 million in FY 1990 and \$29.4 million in FY 1991 will procure Common Weapons Control Systems (CWCS), and alteration/modification kits for surface ships missile launching systems. The FY 1990 request of \$6.1 million and the FY 1991 request of \$7.1 million for the Submarine TOMAHAWK Support equipment program will procure modification to the MK-117 Fire Control System for SSN 637 and 688 Class submarines to provide these submarines the capability to launch the TOMAHAWK Cruise Missile. The Vertical Launch Systems request of \$86.6 million in FY 1990 and \$63.8 million in FY 1991 will provide for installation of five VLS systems on DD 963, DDG-51, and CG 47 class ships.

Strategic Platform Support Equipment (P-1 Line Items 227-228)

(\$ In Thousands)	
FY 1990	FY 1991
<u>\$60,190</u>	<u>\$106,575</u>

The FY 1990 request of \$60.2 million and the FY 1991 request of \$106.6 million for Strategic Platform Support equipment provides funding for ordnance support, ship alterations and test equipment for the TRIDENT submarine and TRIDENT Refit Facility (TRIREFAC) located at Naval Submarine Base (NSB), Bangor, Washington and numerous support facilities. A significant modernization program is the Combat Control System MK2 (CCS MK2) which provides the ADCAP torpedo capability plus display and simulator improvements which will provide important operability enhancements in SSBN platforms. In addition, funds are requested for the procurement of Strategic Weapon System (SWS) equipment for deployed SSBNs and shore support sites to support the POSEIDON (C-3), TRIDENT I (C-3), TRIDENT I (C-4) and TRIDENT II (D-5) programs and procurement of Strategic Weapons System equipment and ship system ordnance equipment needed to establish the Navy Submarine Base, Kings Bay Georgia.

ASW Support Equipment (P-1 Line Items 229-233)

(\$ In Thousands)	
FY 1990	FY 1991
<u>\$72,060</u>	<u>\$85,484</u>

The FY 1990 request of \$72.1 million and FY 1991 request of \$85.5 million for Anti-Submarine Warfare Support equipment procurement includes funding for the All Digital Attack Center (ADAC), which includes FCS MK-117 increased Display and Conversion for Over the Horizon targeting, Advanced Capability (ADCAP) Torpedo, and FCS MK-117/CCS MK-1/MK-2 Improvements. The Combat Control System Obsolete Equipment Replacement (CCS OER) program helps to standardize hardware and software, ensuring commonality with the AN/BSY-1 SSN-688 and Trident SSBN's. Replacing obsolete components with modernized versions will result in improved reliability, maintainability and operability. In addition, FY 1990 and FY 1991 funding will support procurement of various upgrades to submarines and surface torpedo tube equipment, Anti-Submarine Rocket (ASROC) launchers, and various test equipments. These funds will also provide for the procurement of Anti-Submarine Warfare torpedo exercise and shore support equipment, range equipment for Fleet Operational Readiness Accuracy Check Sites (FORACS) and Sensor Accuracy Check Sites (SACS), and test equipment to support Weapon System Accuracy Trials (VSAT).

Other Ordnance Support Equipment (P-1 Line Items 234-240)

(\$ In Thousands)	
FY 1990	FY 1991
\$27,889	\$29,367

The FY 1990 request of \$27.9 million and the FY 1991 request of \$29.4 million for Other Ordnance Support equipment are for various ordnance programs not budgeted under other programs within this budget activity. Some of the major programs include: Explosive Ordnance Disposal equipment, Unmanned Seaborne Targets, and Stock Surveillance equipment. The request in both FY 1990 and FY 1991 for Explosive Ordnance Disposal equipment provides for procurement of necessary EOD tools and equipment required for initial outfitting of EOD units. These equipments provide ordnance location and safe disposal of unexploded ordnance. The request for Unmanned Seaborne Targets provides Surface Seaborne Targets for Fleet Training, with procurement of Septar Targets and Floating Automatic Scoring Target (FAST) hulls in FY 1990 and continuing in FY 1991. The request in FY 1990 and FY 1991 for Stock Surveillance equipment provides resources for determining safety, reliability, readiness, and service/shelf life of both stored and deployed Navy and Marine Corps tactical weapons and weapon systems and the causes for degradations. Other programs included in the FY 1990 and FY 1991 request are Swimmer Weapons Systems for Special Operation Forces (FY 1990 only), Anti-Ship Missile Decoy System, Calibration equipment, and Other Ordnance Training equipment.

Other Expendable Ordnance (P-1 Line Items 241-249)

(\$ In Thousands)	
FY 1990	FY 1991
\$129,754	\$74,212

The FY 1990 request of \$129.8 million is for procurement of other expendable ordnance. The FY 1991 request of \$74.2 million supports fleet mine support, mine neutralization and ship expendable countermeasures procurements. Beginning in FY 1991, funding for ammunition and other non-SOF ordnance has transferred to VPN. In addition, the FY 1991 request reflects the transfer of Special Operation Force (SOF) funding to Procurement, Defense Agencies. The request for Fleet Mine Support Equipment in FY 1990 and FY 1991 provides for the procurement of material and production support services for the assembly of mines in stockpile. The request also provides for support of fleet proficiency training, mine warfare and mine countermeasures training, and improved stockpile mine performance. The Shipboard Expendable Countermeasures program provides for Anti-Ship Missile Decoys deployed from the MK-36 Decoy Launching System. The FY 1990 and FY 1991 request provides for SEA GNAT RF Decoys.

BUDGET ACTIVITY 5: CIVIL ENGINEERING SUPPORT EQUIPMENT
SUMMARY OF BUDGET PLAN
 (\$ In Thousands)

Budget Plan (Amount for Procurement Actions Programmed)				
	FY 1989 Actual	FY 1990 Estimate	FY 1991 Estimate	Justification Page
Passenger Carrying Vehicles Trucks, Trailers, Construction and Maintenance Equipment	\$6,036 47,392	\$6,954 58,092	\$7,019 51,874	60 61
Amphibious Equipment and Combat Construction Support Equipment	39,121	12,449	7,684	61
Other Equipment	19,017	22,186	21,891	62
Total Budget Plan	\$111,566	\$99,681	\$88,468	

BUDGET ACTIVITY 5: CIVIL ENGINEERING SUPPORT EQUIPMENT

(\$ in Thousands)	
FY 1991 Estimate -	\$88,468
FY 1990 Estimate -	\$99,681
FY 1989 Actual -	\$111,566

Purpose and Scope of Work

Funds provided under this budget activity are for the procurement of passenger carrying vehicles, trucks and trailers, construction, earthmoving, maintenance, fire fighting, weight handling, amphibious and specialized equipment, combat construction support equipment, mobile utilities support equipment, fleet moorings, collateral equipment for the initial outfitting of military construction projects, pollution control equipment, and equipment used for construction of underwater facilities. This equipment is procured for Navy-wide use by the Operating Forces and Shore Establishment including passenger carrying vehicles for Industrial Fund activities.

Justification of Funds

Passenger Carrying Vehicles - (P-1 Line Items 250 & 251)

(\$ in Thousands)	
FY 1990	FY 1991
\$ 6,954	\$ 7,019

This category provides for replacement and limited augment of buses, sedans, station wagons and armored sedans for all Navy activities. Included are replacement vehicles for Navy Industrial Fund (NIF) activities in compliance with the 97th Congress House of Representatives Conference Report No. 97-80. The FY 1990 program provides for the replacement of 493 vehicles leaving 1,524 in the inventory which exceed economic replacement criteria. The FY 1991 program provides for the replacement of 454 vehicles leaving an additional 1,936 in the inventory which exceed economic replacement criteria. This category does not include ambulances, which are addressed below.

Trucks, Trailers, Construction and Maintenance Equipment - (P-1 Line Items 252 - 263)

(\$ in Thousands)	
FY 1990	FY 1991
\$58,092	\$51,874

This category includes trucks, trailers, generators, crushing, drilling, earth moving, fire fighting and weight handling equipment and ambulances for the protection and maintenance of Naval Shore Activities, Naval Construction Forces, and various other Operational Forces worldwide. Funding includes initial outfitting of the Advanced Base Functional Component (ABFC), \$1.403 million in FY 1990 and \$1.725 million in FY 1991, the Reserve Naval Construction Force (RNCF), \$.623 million in FY 1990 and \$1.839 million in FY 1991, and the Assault Follow-on Echelon (AFOE), \$.701 million in FY 1990 and \$.5 million in FY 1991.

Amphibious Equipment (P-1 Line Item 264) and Combat Construction Support Equipment (P-1 Line Item 265)

(\$ in Thousands)	
FY 1990	FY 1991
\$12,449	\$ 7,684

These funds provide specialized amphibious equipment which significantly enhances the Navy's capability to support Marine Corps amphibious operations through the ship-to-shore transfer of both dry and liquid cargo and as a key part of the Strategic Sealift Program. This equipment will be used by the Amphibious Construction Battalions in the Assault Echelon and the Assault Follow-on Echelon phases of amphibious operations to provide essential logistic support in advanced areas having little or no port capability. The amphibious dry cargo transfer equipment in the FY 1990 program includes non-powered causeway sections and other miscellaneous specialized amphibious equipment. Combat Construction Support Equipment consists primarily of relocatable facilities such as storage magazines, fuel storage tanks, multipurpose shelters and containers, and panel buildings in support of Naval Construction Force personnel. The FY 1990 and FY 1991 programs include the outfitting of Naval Mobile Construction Battalions with containers for prepacking Table of Allowance items and provide shelters for the protection of personnel against chemical agents at overseas Naval Bases.

Other Equipment - (P-1 Line Items 266 - 271)

(\$ in Thousands)	
FY 1990	FY 1991
\$22,186	\$21,891

Other programs in Budget Activity 5 include Mobile Utilities Support Equipment which provides electric power and high quality steam for support to the fleet while in port, and for emergency shore operations, serious utility system deficiencies and delayed military construction. Collateral equipment provides equipment and furnishings to initially outfit military construction projects. Ocean Facilities Construction Equipment is associated with strategic deterrence, anti-submarine warfare and other fleet underway construction programs. Fleet Moorings procures the components for overhauling fleet moorings worldwide. Pollution control equipment is for compliance with the Clean Air Act and Clean Water Act Amendments, various Environmental Protection Agency Regulations and State Implementation Plans. Also included is Other Civil Engineering Support Equipment for Administrative and Public Works Shop Equipment.

BUDGET ACTIVITY 6: SUPPLY SUPPORT EQUIPMENT
SUMMARY OF BUDGET PLAN
 (\$ In Thousands)

Budget Plan (Amounts for Procurement Actions Programmed)				
	FY 1989 ACTUAL	FY 1990 ESTIMATE	FY 1991 ESTIMATE	JUSTIFICATION PAGE
Material Handling Equipment and Systems	\$16,659	\$20,455	\$24,663	64
Other Supply Support Equipment	4,227	3,467	3,218	65
Classified Programs	88,790	119,174	392,549	65
First Destination Transportation	0	0	58,000	66
Total Budget Plan	\$109,676	\$143,096	\$478,430	

BUDGET ACTIVITY 6: SUPPLY SUPPORT EQUIPMENT

(\$ In Thousands)	
FY 1991 Estimate	\$478,430
FY 1990 Estimate	\$143,096
FY 1989 Actual	\$109,676

Purpose and Scope of Work

This budget activity finances the procurement of forklift trucks and other materials handling equipment used at Navy installations and aboard ships; automated materials handling systems; investment type support equipment; reprographics equipment; and first destination transportation costs for procurement acquisitions. In addition, financing for certain classified projects is included in this activity.

Justification of Funds

Materials Handling Equipment and Systems (P-1 Line Items 272-274)

(\$ In Thousands)	
FY 1990	FY 1991
\$20,455	\$24,663

These funds are requested to procure Forklift trucks in FY 1990 and FY 1991 which are needed for the cyclical replacement of overage equipments aboard ships and at shore activities which are more costly to maintain than to replace.

For Other Materials Handling equipment, the FY 1990 and FY 1991 requests represent a phased equipment replacement program designed to reduce the significant level of overage warehouse tractors, cranes and other equipment in the inventory.

The requested funds for the Automated Materials Handling system (AMHS) will provide for the installation of four Navy Integrated Storage Tracking and Retrieval Systems (NISTARS) in FY 1990 and FY 1991. NISTARS automates certain warehouse functions and places the entire warehouse operation under positive management control and automation. It improves the efficiency of labor and materials, as well as improves inventory accuracy. The first three sites were procured with an acquisition strategy which required one contractor to provide software, computer control, and all AMHS. A new acquisition strategy has been developed to breakout stand-alone AMHS as government furnished equipment in the competitive contract for these NISTARS sites.

Other Supply Support Equipment (P-1 Line Items 275-276)

(\$ in Thousands)	
FY 1990	FY 1991
<u>\$3,467</u>	<u>\$3,218</u>

The request for Other Supply Support equipment includes the procurement of shop and office equipment, reprographics, uninterrupted power service units, enlisted dining facilities equipment, office automation, and pollution control projects.

Classified Programs (P-1 Line Item 278)

(\$ In Thousands)	
FY 1990	FY 1991
<u>\$119,174</u>	<u>\$392,549</u>

Details of this program are of a higher classification. Justification is provided separately.

First Destination Transportation (P-1 Line Item 277)

(\$ In Thousands)	
FY 1990	FY 1991
<u>0</u>	<u>\$58,000</u>

The requested funds are for First Destination Transportation costs associated with the movement of newly procured equipment and material from the contractor's plant to the initial point of receipt by the government. The FY 1990 program is addressed in the O&M,N budget. Beginning in FY 1991 these costs are budgeted in procurement to more accurately identify total equipment fielding costs.

BUDGET ACTIVITY 7: PERSONNEL AND COMMAND SUPPORT EQUIPMENT
SUMMARY OF BUDGET PLAN
(\$ In Thousands)

Budget Plan
(Amounts for Procurement Actions Programmed)

	<u>FY 1989</u>	<u>FY 1990</u>	<u>FY 1991</u>	<u>JUSTIFICATION</u>
	<u>ACTUAL</u>	<u>ESTIMATE</u>	<u>ESTIMATE</u>	<u>PAGE</u>
Training Equipment	\$93,715	44,840	104,673	68
Command Support Equipment	169,520	185,646	160,212	69
Industrial Depot Maintenance Equipment	-	337,095	348,231	70
Computer Acquisition Equip	169,938	69,482	106,339	70
Productivity Programs	11,600	32,259	29,122	71
<u>Total Budget Plan</u>	<u>\$444,773</u>	<u>\$669,322</u>	<u>\$748,577</u>	

BUDGET ACTIVITY 7: PERSONNEL AND COMMAND SUPPORT EQUIPMENT

(\$ In Thousands)	
FY 1991 Estimate	- \$748,577
FY 1990 Estimate	- \$669,322
FY 1989 Actual	- \$444,773

Purpose and Scope of Work

This budget activity finances the procurement of Training Equipment, Command Support Equipment, Computer Equipment and Productivity Investment Programs.

Justification of Funds

Training Equipment (P-1 Line Items 279-285)

(\$ In Thousands)	
FY 1990	FY 1991
\$44,840	\$104,673

Surface training devices will provide maintenance, operator, team, and refresher training for new combat systems/capabilities being introduced into the fleet. Requested funding supports a variety of cost effective devices including Surface Sonar Trainers, Ship System Trainers and Surface Combat System Trainers (FY 1990, \$19.9 million; FY 1991, \$63.1 million).

Funding is required to procure Training Support Equipment (TSE) consisting of minor training aids and devices to support the education and training programs which supply the Fleet with effectively trained personnel (FY 1990, \$2.7 million; FY 1991, \$2.9 million).

Training Device Modifications provide cost-effective enhancements to update the existing inventory of training devices. The modifications help maintain the training value of devices and keep them compatible with equivalent changes made to the fleet operational equipments which these devices simulate (FY 1990, \$22.4 million; FY 1991, \$38.7 million).

Command Support Equipment (P-1 Line Items 286-294)

(\$ In Thousands)	
FY 1990	FY 1991
\$185,646	\$160,212

This funding provides for the procurement of items which have a unit cost over \$15 thousand including Command Support, Intelligence Support, Education Support, Medical Support, Operating Forces Equipment, Naval Reserve Support, Oceanographic Support, Physical Security Support, and Centrally Managed equipment with a unit cost less than \$15 thousand.

This request includes acquisition of equipment needed for the Naval Intelligence Command and its field activities. It is a part of the General Defense Intelligence Program (GDIP) requirements. Details on this classified program are contained in the Intelligence Justification Books, provided separately.

Funding is also requested to procure Medical Support equipment to be located in the United States and for prepositioned Fleet Hospitals. Funds requested to replace existing worn-out, obsolete assets located in the United States will provide for the acquisition of new technological developments for a modern health care delivery system. Funds requested for Fleet Hospitals will procure shelters, transportation equipment, medical equipment, and other hospital support equipment to provide medical care for Navy and Marine Corps personnel during wartime.

Funds are requested to procure Oceanographic equipment required to collect, analyze, and disseminate environmental data. This data is critical for precise positioning, navigation, and targeting of enemy air, surface, and sub-surface weapon systems.

Funds are requested in FY 1990 and FY 1991 to continue procuring security systems to protect nuclear weapons afloat and ashore. It continues to provide for increased security of arms, ammunition and explosives, acceleration of the installation of intrusion detection systems at nuclear storage sites, and the SWFLANT, Kings Bay effort. Initial operational capability for Waterside Security Systems at strategic SUBASES commences in FY 1991 and Magazine Security Systems for nuclear capable ships will be in FY 1990. Physical security systems to support the White House Military Office begins in FY 1990.

Funds are requested for acquisition of equipment to support Chief of Naval Operations field activities, Naval Military Personnel Command, Naval Telecommunications Command, Office of the Secretary of the Navy, Naval Reserves, Naval Academy, Naval Postgraduate School, Naval War College, and Headquarters of Pacific, Atlantic, and Europe Fleet Commands.

Industrial Depot Maintenance Equipment (P-1 Line Item 295)

(\$ In Thousands)	
FY 1990	FY 1991
\$337,095	\$348,231

The FY 1990 DOD Appropriations Act transferred funding for the Asset Capitalization Program from Industrial Fund operations to the Other Procurement, Navy appropriation. The Industrial Depot Maintenance Equipment line provides for the procurement of equipment major management information systems and other investments required to support efficient operations at the 12 Navy Industrial Fund activity groups. Items to be procured in FY 1990 and FY 1991 include portal cranes. Special hull treatment enclosures, automated engineering equipment super computers, test equipment and various industrial equipments.

Computer Acquisition Program (P-1 Line Item 296)

(\$ In Thousands)	
FY 1990	FY 1991
\$69,482	\$106,339

The Computer Acquisition Program (CAP) was established to optimize the procurement of general purpose Automated Data Processing Equipment (ADPE) Navy-Wide. The procurement of ADPE through the CAP represents the culmination of several planned and developed ADP systems that are ready for deployment and introduction throughout the Fleet. The workload that is performed directly supports such day-to-day efforts as fleet supply and logistics, maintenance, financial and personnel management, health management, all of which are currently either performed manually or in part by using old, obsolete, unreliable data processing support. The automation and upgrade capability funded by the CAP will lighten Fleet workload and modernize ADP, directly improving overall Fleet readiness. FY 1991 funding reflects the anticipated savings from these efforts and supports procurement of Navy-unique requirements. As part of the Defense Management Review, a Corporate Information Management committee was established within the Department of Defense to eliminate duplication of development and maintenance of information management systems.

Productivity Programs (P-1 Line Items 297-298)

(\$ In Thousands)	
FY 1990	FY 1991
<u>\$32,259</u>	<u>\$29,122</u>

Funds requested for the Productivity Investment Fund and Productivity Enhancing Incentive Fund are used to purchase improved general purpose equipment, tools and procedures. The objective of productivity investments is to apply capital investment in exchange for labor intensive and costly operations in government by investments in modern equipment, methods and labor saving devices. It also realizes a continuing stream of benefits through the reduction of recurring operating costs. Projects involve the replacement of old and outmoded equipment and procedures to reduce inefficiency and maintenance costs. This frequently implants new technology as well as enabling growth in efficiency and the solution of emerging problems in operations and logistics. The technology factor has been credited with at least 40 percent of all productivity growth over the past five decades of domestic experience. Productivity investments directly address the unfunded backlog of compelling investment opportunities existing in the Navy.

BUDGET ACTIVITY 8: SPARES AND REPAIR PARTS
SUMMARY OF BUDGET PLAN
(In Thousands)

Budget Plan (Amounts for Procurement Actions Programmed)				
	FY 1989 Actual	FY 1990 Estimate	FY 1991 Estimate	Justification Page
Spares and Repair Parts				
Initial	\$182,574	\$204,803	\$224,858	73
Replenishment	20,478	23,141	19,375	73
Outfitting	324,486	185,652	277,445	73
Total Budget Plan	527,538	413,596	521,678	

BUDGET ACTIVITY 8: SPARES AND REPAIR PARTS (P-1 LINE ITEM 299)

(\$ in Thousands)
 FY 1991 Estimate - \$521,678
 FY 1990 Estimate - \$413,596
 FY 1989 Actual - \$527,528

Purpose and Scope of Work

Budget Activity 8 provides for all Other Procurement, Navy (OPN) spares. The funding requested provides for the procurement of spares and repair parts for all equipments requiring support by the Systems Commands prior to transitioning into the Navy Stock Fund and is divided between Initial spares (\$204.8 million in FY 1990 and \$224.9 million in FY 1991), Replenishment spares (\$23.1 million in FY 1990 and \$19.4 in FY 1991), and outfitting spares (\$185.7 million in FY 1990 and \$277.4 million in FY 1991). The FY 1990 program of \$413.6 million includes the procurement of \$129.5 million of ships initial spares, \$48.7 million of communications and electronics initial spares, \$14.7 million of aviation initial spares, \$10.4 million of ordnance initial spares, \$1.3 million of civil engineering initial spares, \$4.9 million of aviation replenishment spares, \$12.7 million of ordnance replenishment spares, \$5.5 million of electronics replenishment spares, and \$185.7 of ship outfitting spares. The FY 1991 program of \$521.7 million includes the procurement of \$136.7 million of ships initial spares, \$62.5 million of communication electronics initial spares, \$12.9 million aviation initial spares, \$11.4 million of ordnance initial spares \$1.4 million of civil engineering initial spares, \$6.0 million of aviation replenishment spares, \$13.2 million of ordnance replenishment spares, \$.1 of communications and electronics replenishment spares and \$277.4 of ship outfitting spares.

Comparison of FY 1990 Program Requirements as Reflected
In Revised FY 1990/1991 Budget With FY 1990 Program Requirements as
Shown in FY 1991 Budget

SUMMARY OF REQUIREMENTS (In Thousands of Dollars)

	Total Program Requirements Per FY 1990/1991 <u>Revised Budget</u>	Program Requirements Per FY 1991 <u>Budget</u>	Increase (+) or Decrease (-)
1. Ships Support Equipment	736,413	3,580,465	+2,844,052
2. Communications & Electronics Equipment	1,679,694	1,562,834	-116,860
3. Aviation Support Equipment	536,398	577,781	+41,383
4. Ordnance Support Equipment	752,446	733,045	-19,401
5. Civil Engineering Support Equipment	97,092	99,681	+2,589
6. Supply Support Equipment	156,081	143,096	-12,985
7. Personnel & Command Support Equipment	409,471	669,322	+259,851
8. Spares & Repair Parts	547,405	413,596	-133,809
Reimbursable Program	65,000	130,000	+65,000
 Total Fiscal Year Program	 4,980,000	 7,909,820	 +2,929,820

EXPLANATION BY BUDGET ACTIVITY

1. Ships Support Equipment (\$2,844.1 million)

The increase of \$2,844.1 million resulted from the following: Specific Congressional adjustments to transfer funding for installation of modernization equipment (\$+2,884.1 million) from O&M,N & O&M,NR; LM-2500 Gas Turbine (\$-7.5 million), Submarine Propellers (\$-1.0 million), transfer Enterprise to SCN (\$-.2 million) and an increase for Molded Case Circuit Breakers (\$6.0 million); General Congressional reductions for: contractor travel (\$.3 million), Contractor Advisory Assistance Services (\$.1 million) and Gramm-Rudman-Hollings sequestration (\$34.2 million); proposed DD 1415 reprogramming for DOD Counternarcotics (\$2.0 million); proposed DD 1415 reprogramming to SCN (\$1.0 million); and minor below threshold reprogrammings (\$+.3 million).

2. Communications and Electronic Equipment (\$-116.9 million)

The decrease of \$116.9 million resulted from the following: Specific Congressional adjustments to AN/SPS-49 Radar (\$-4.5 million), AN/SPS-48E radar (\$39.0 million), AN/BQQ-5 Sonar (\$-10.1 million), Navy Tactical Data System (\$-1.0 million), Strategic Platform Support Equipment (\$-25.0 million), Relocatable Over the Horizon Radar (\$-75.7 million); and transfer Enterprise to SCN (\$-15.1 million); general Congressional reductions for contractor travel (\$.4 million), contractor advisory assistance services (\$1.0 million), and Gramm-Rudman-Hollings sequestration (\$15.0 million); a proposed DD 1415 reprogramming for DOD counternarcotics (\$2.5 million); proposed DD 1415 reprogramming to SCN (\$8.2 million) and WPN (\$8.9 million); and minor below threshold reprogrammings (\$+11.5 million).

3. Aviation Support Equipment (\$41.4 million)

The increase of \$41.4 million resulted from the following: Specific Congressional adjustments to Sonobuoys (\$+45.0 million), 2.75 Inch Rockets (\$-1.4 million), Aircraft Rearming Equipment (\$-1.1 million), Machine Gun Ammunition (\$+2.0 million), and Practice Bombs (\$+7.5 million); General Congressional reductions for contractor travel (\$.4 million), contractor advisory assistance services (\$1.2 million), and Gramm-Rudman-Hollings sequestration (\$5.7 million). Other reductions are a proposed DD 1415 reprogramming for DOD Counternarcotics (\$2.0 million), a proposed DD 1415 reprogramming to MPN/MPMC (\$10.0 million), and minor below threshold reprogramming actions (\$+8.7 million).

4. Ordnance Support Equipment (\$-19.4 million)

The decrease of \$19.4 million resulted from: Specific Congressional adjustments to CIWS Ammunition (\$10.0 million); General Congressional reductions for contractor travel (\$.2 million), contractor advisory assistance services (\$.5 million), and Gramm-Rudman-Hollings sequestration (\$7.2 million). Other reductions are for a proposed DD 1415 reprogramming to DOD Counternarcotics (\$8.0 million), a proposed DD 1415 reprogramming to SCN (\$3.3 million), a proposed DD 1415 reprogramming to MPN/MPMC (\$10.0 million), and minor below threshold reprogramming actions (\$-.2 million).

5. Civil Engineering Support Equipment (\$+2.6 million)

The increase of \$2.6 million resulted from the following: Specific Congressional adjustment to Amphibious Equipment (\$+16.5 million); General Congressional reduction for Gramm-Rudman-Hollings sequestration (\$1.1 million), a proposed DD 1415 reprogramming to SCN (\$.2 million), a proposed DD 1415 reprogramming to MPN (\$16.5 million) and minor below threshold reprogramming actions (\$+3.9 million).

6. Supply Support Equipment (\$-13.0 million)

The decrease of \$13.0 million resulted from Gramm-Rudman-Hollings sequestration (\$1.5 million), a proposed DD 1415 reprogramming to SCN (\$.7 million) and WPN (\$9.5 million), minor below threshold reprogramming actions (\$-1.3 million).

7. Personnel and Command Support Equipment (\$+260.0 million)

The increase of \$260.0 million resulted from the following: Specific Congressional adjustments to transfer Industrial Depot Maintenance Equipment funds from the Industrial Funds (\$351.9 million), Ship System Trainers (\$-3.7 million), Command Support Equipment (\$-8.0 million), Medical Support Equipment (\$-8.4 million), Computer Acquisition Program (\$-32.0 million); General Congressional reduction for Gramm-Rudman-Hollings sequestration (\$6.7 million); other reductions for a proposed DD 1415 reprogramming to DOD Counternarcotics (\$8.5 million); proposed DD 1415 reprogramming to MPN/MPMC (\$20.4 million); and minor below threshold reprogramming actions (\$-4.2 million).

8. Spares and Repair Parts (\$-133.9 million)

The decrease of \$133.9 million results from specific Congressional reduction (\$-129.5 million); general Congressional reduction for Gramm-Rudman-Hollings sequestration (\$4.0 million); and minor below threshold reprogramming actions (\$-.4 million).

9. Reimbursable Program (\$+65.0 million)

The increase of \$65.0 million results from an anticipated increase in sales.

Comparison of FY 1990 Financing as Reflected
In Revised FY 1990/1991 Budget With FY 1990 Financing as
Shown in FY 1991 Budget

SUMMARY OF FINANCING (In Thousands of Dollars)

	<u>Financing Per FY 1990/1991 Revised Budget</u>	<u>Financing Per FY 1991 Budget</u>	<u>Increase (+) or Decrease (-)</u>
Program Requirements (Total)			
Program Requirements (Service Account)	4,980,000	7,909,820	+2,929,820
Program Requirements (Reimbursable)	4,915,000	7,779,820	+2,864,820
	65,000	130,000	+65,000
Less:			
Anticipated Reimbursements	65,000	130,000	+65,000
Appropriation	4,915,000	7,970,764	+3,055,764
Transfer to Other Accounts	0	-111,441	-111,441
Reduction pursuant to P.L. 99-77	0	-75,303	-75,303
Reduction pursuant to P.L. 101-165	0	-4,200	-4,200
Appropriation (Adjusted)	4,915,000	7,779,820	2,864,820

EXPLANATION OF CHANGES IN FINANCING

1. Program Requirements (Total)

The increase reflects Congressional action to the Revised FY 1990/1991 Budget, proposed inter-appropriation transfers, and an increase in the reimbursable program.

2. Program Requirements (Service Account)

The increase reflects numerous Congressional adjustments and proposed inter-appropriation transfers.

3. Program Requirements (Reimbursable)

The increase of \$65.0 million results from an anticipated increase in sales.

4. Anticipated Reimbursements

The increase of \$65.0 million results from an anticipated increase in sales.

5. Appropriation

The increase reflects the difference between the requested amount in the FY 1990/1991 Revised Budget and the amount actually appropriated less Public Laws 99-77 and 101-165, and proposed inter-appropriation transfers.

6. Transfer to Other Accounts

The decrease reflects inter-appropriation transfers of appropriated funds to finance MPN/MPMC (\$56.9 million), Weapons Procurement, Navy (\$18.4 million), Shipbuilding and Conversion, Navy (\$13.3 million), and DOD Counternarcotics (\$22.9 million).

7. Reduction Pursuant to P.L. 99-77

The decrease represents the adjustment for Gramm-Rudman-Hollings sequestration.

8. Reduction Pursuant to P.L. 101-165

The decrease represents the adjustment for contractor travel and contractor advisory assistance services.

9. Appropriation (Adjusted)

The increase reflects numerous Congressional adjustments and proposed inter-appropriation transfers.

Comparison of FY 1989 Program Requirements as Reflected
In Revised FY 1990/1991 Budget With FY 1989 Program Requirements as
Shown in FY 1991 Biennial Budget

SUMMARY OF REQUIREMENTS (In Thousands of Dollars)

	Total Program Requirements Per FY 1990/1991 Revised Budget	Program Requirements Per FY 1991 Budget	Increase (+) or Decrease (-)
1. Ships Support Equipment	620,995	620,486	-509
2. Communications & Electronics Equipment	1,397,494	1,399,461	+1,967
3. Aviation Support Equipment	490,844	487,699	-3,145
4. Ordnance Support Equipment	1,086,481	1,051,605	-34,876
5. Civil Engineering Support Equipment	108,125	111,566	+3,441
6. Supply Support Equipment	103,500	109,676	+6,176
7. Personnel & Command Support Equipment	406,174	444,773	+38,599
8. Spares & Repair Parts	522,478	527,538	+5,060
Reimbursable Program	65,000	51,776	-13,224
Total Fiscal Year Program	4,801,091	4,804,580	+3,489

EXPLANATION BY BUDGET ACTIVITY

1. Ship Support Equipment (\$-.5 million)

The decrease of \$.5 million results from Gramm-Rudman-Hollings adjustment (\$-1.5 million), a proposed DD 1415 reprogramming action to WPN (\$-1.0 million) and minor below threshold reprogramming actions (\$2.0 million).

2. Communications and Electronic Equipment (\$+2.0 million)

The increase of \$2.0 million results from Drug Interdiction reprogramming (\$+36.3 million) and decrease from Gramm-Rudman-Hollings (\$-7.3 million), inter-appropriation transfers to O&M, Army (\$-9.4 million) and WPN (\$-5.0 million); and minor below threshold reprogrammings (\$-12.6 million).

3. Aviation Support Equipment (\$-3.1 million)

The decrease of \$3.1 million results from Gramm-Rudman-Hollings adjustments (\$-.6 million), a proposed DD 1415 reprogrammings action to WPN (\$-2.0 million) and minor below threshold reprogramming actions (\$-.5 million).

4. Ordnance Support Equipment (\$-34.9 million)

The decrease of \$34.9 million results from Gramm-Rudman-Hollings adjustments (\$-6.4 million) and minor below threshold reprogramming actions of (\$-28.5 million).

5. Civil Engineering Support Equipment (\$+3.4 million)

The increase of \$3.4 million results from minor below threshold reprogramming actions (\$+4.0 million) and a decrease for Gramm-Rudman-Hollings adjustment (\$-.6 million).

6. Supply Support Equipment (\$+6.2 million)

The increase of \$6.2 million results from minor below threshold reprogramming actions (\$+6.8 million) and a decrease from Gramm-Rudman-Hollings adjustment (\$-.6 million).

7. Personnel and Command Support (\$+38.6 million)

The increase of \$38.6 million results from an inter-appropriation transfer for ADP equipment (\$+33.3 million) and Intelligence equipment (\$+.6 million), a decrease for Gramm-Rudman-Hollings adjustment (\$-1.3 million), and minor below threshold reprogramming actions (\$+6.0 million).

8. Spares and Repair Parts (\$+5.1 million)

The increase of \$5.1 million results from minor below threshold reprogramming actions (\$+5.6 million) and a decrease for Gramm-Rudman-Hollings adjustments (\$-.5 million).

9. Reimbursable Program (\$-13.2 million)

The decrease of \$13.2 million results from actual reimbursable collections.

Comparison of FY 1989 Financing as Reflected
In Revised FY 1990/1991 Budget With FY 1989 Financing as
Shown in FY 1991 Budget

SUMMARY OF FINANCING (In Thousands of Dollars)

	<u>Financing Per FY 1990/1991 Revised Budget</u>	<u>Financing Per FY 1991 Budget</u>	<u>Increase (+) or Decrease (-)</u>
Program Requirements (Total)			
Program Requirements (Service Account)	4,801,091	4,804,580	+3,489
Program Requirements (Reimbursable)	4,736,091	4,752,804	+16,713
	65,000	51,776	-13,224
Less:			
Anticipated Reimbursements	65,000	51,776	-13,224
Transfer from other accounts	110,700	132,262	+21,562
Add:			
Transfer to Other Accounts		57,400	+57,400
Public Law 99-77 (Gramm-Rudman-Hollings)		18,798	+18,798
Unobligated Balance Lapsing		1,383	+1,383
Appropriation	4,813,969	4,813,969	0
Transfer to Other Accounts	-208,600	-184,634	+23,966
Transfer from Other Accounts	27,000	75,766	+48,766
Reduction pursuant to PL 100-463	-6,978	-6,978	0
Appropriation (Adjusted)	4,625,391	4,698,123	72,732

EXPLANATION OF CHANGES IN FINANCING

1. Program Requirements (Total)

The increase reflects the net of approved inter-appropriation transfers \$16.7 million and changes to the reimbursable program of \$13.2 million.

2. Program Requirements (Service Accounts)

The increase in program requirements represents the approval of inter-appropriation transfers.

3. Program Requirements (Reimbursable)

The decrease in the reimbursable program reflects the actual orders received.

4. Anticipated Reimbursements

The decrease in the reimbursable program reflects the actual orders received.

5. Transfers from Other Accounts

The increase represents the approval of additional inter-appropriation transfers.

6. Transfers to Other Accounts

The increase represents inter-appropriation transfers planned for approval in FY 1990.

7. Public Law 99-77

The increase represents the amount associated with the Gramm-Rudman-Hollings sequestration.

8. Unobligated Balancing Lapsing

The increase represents funds lapsing for new obligations.

9. Transfers to Other Accounts

The increase represents funds approved for inter-appropriation transfers.

10. Transfers From Other Accounts

The increase represents inter-appropriation transfer of funds appropriated in other accounts for Drug Interdiction and ADP Management.

11. Reduction Pursuant to PL 100-463

No change.

12. Appropriation (Adjusted)

The increase reflects the difference between the FY 1989 direct appropriation in the Revised FY 1990/1991 Budget and the amount reflected in the FY 1991 budget.